

6. DEVELOPMENT STANDARDS

6.1 PURPOSE AND INTENT

The general intent of this section is to provide standards for development to help ensure the safe and convenient development of land on sites and in locations adequate for the uses proposed. No Zoning Compliance Permit or Certificate of Occupancy shall be issued for uses of land, structures and/or buildings, or for a change in the use, unless the requirements of this Chapter are met. The standards set forth in this section are to be used in conjunction with the other sections of this Ordinance in the development of projects and submittal of site plans.

6.2 DESIGN STANDARDS MANUAL

Reserved for future codification.

6.3 GENERAL DIMENSIONAL STANDARDS

The following section includes dimensional standards for both residential and non-residential zoning districts. These general dimensional standards apply to all properties unless otherwise specified in this Ordinance or by the permit-issuing authority.

There are three tables in this section:

- (a) 6.3.1: Residential Dimensional Requirements includes a summary table that specifies the area, maximum height, and yard setbacks for each of the respective types of residential zoning districts
- (b) 6.3.2: Non-residential Dimensional Requirements includes a summary table that specifies the area, maximum height, and yard setbacks for each of the respective types of non-residential zoning districts
- (c) 6.3.3: Side and Rear Setback for lots abutting a different Zoning District includes a summary table that specifies yard setbacks for lots when the adjacent property is of a different zoning district.

6.3.1 TABLE: DIMENSIONAL REQUIREMENTS – RESIDENTIAL

	AR	R-40	R-20	R-15	R-10	MF & MFSU	MHP	ALN	PW ¹	PWCA ¹
Minimum Lot Area (sf)	40,000	40,000	20,000	15,000	10,000	1 acre 4,840 sf per dwelling	5 acre 5,714 sf per dwelling	1 acre	1 acre	2 acre
Minimum Lot Width	200	150	100	100	75	200	200	200	150	150
Minimum Side Yard Width	50	30	20	15	15	40	40	40	30	30
Minimum Rear Yard Width	50	30	20	20	20	40	40	40	30	30
Minimum Front Setback	50	40	30	25	25	35	35	35	30	30
Maximum Building Height	65	45	45	45	45	45	35	35	45	45
Maximum Impervious Surface (% of gross lot)	na	na	na	na	na	na	na	na	30%	6%

[1] Refer to Section 4.5 for additional requirements in the PW and PWCA districts.

6.3.2 TABLE: DIMENSIONAL REQUIREMENTS – NON-RESIDENTIAL

	ARU	OI	NB & NBSU	CC & CCSU	GC	HIC	LI	GI	LO	ESU	EDD	BP	SDSU
Minimum Lot Area (sf or acre)	3 ac.	10,000	10,000	None	10,000	10,000	40,000	40,000	1 acre	2 acre	40,000	40,000	TBD
Attached dwelling minimum lot size (min sf per unit)	3,630 sf 12 DU/ac	NA	NA TBD (SUP)	NA TBD (SUP)	NA	NA	NA	NA TBD (SUP)	NA	TBD	NA	NA	TBD
Minimum Lot Width	100	75	75	0	75	75	100	200	75	100	75	75	TBD
Minimum Side Yard Width	20*	20*	15*	0	15*^	15*^	50*	50*	20	20	25	25	TBD
Minimum Rear Yard Width	20*	20*	20*	0	20*^	20*^	50*	50*	20	20	25	25	TBD
Minimum Front Setback	20	20	20	0	20+	20+	35	35	20	50	25	25	TBD
Maximum Building Height	65	40	35	40	40	65	65	65	60	60	45	60	60

* Refer to Table 6.3.3 for Side and Rear Setbacks for Zoning Lots Abutting a Different Zoning District.

^ For parcels abutting South Churton Street between Interstate-40 and the Eno River, parking must observe at 10' landscaped setback from a side or rear property line. Please refer to Section 6.10.3

+ For parcels abutting South Churton Street between Interstate-40 and the Eno River, the minimum front yard setback is 30 feet and the maximum front yard setback is 100 feet, measured from the Churton Street right of way boundary.

TBD – *This standard will be determined during the Special Use Permit review process*

6.3.3 TABLE: SIDE AND REAR SETBACKS FOR LOTS ABUTTING A DIFFERENT ZONING DISTRICT

Adjacent -> Proposed	R-40	R-20	R-15	R-10	MF	AR	ARU	OI	NB	CC	GC	HIC	GI	LI	EDD	NB-SU	CC-SU	PW	PWCA
ARU	50	50	50	50	50	50	0	20	20	0	0	0	20	20	20	20	0	50	50
OI	20	20	20	20	20	20	0	0	0	0	0	15	20	20	20	0	0	20	20
NB	15	15	15	15	15	15	0	0	0	0	0	15	15	15	15	0	0	15	15
GC	30	30	20	20	20	30	0	0	0	0	0	0	20	20	20	0	0	30	30
HIC	30	30	20	20	20	30	0	15	15	15	0	0	20	20	20	0	0	30	30
LI	50	50	50	50	50	50	0	50	50	50	50	30	0	0	20	0	0	50	50
GI	50	50	50	50	50	50	0	50	50	50	50	30	0	0	20	0	0	50	50
EDD	25	25	25	25	25	25	25	20	25	25	25	25	25	20	25	25	25	25	25

- 6.3.3.1** Bona fide farm operations in the AR district are exempt from the side yard and rear yard setback requirements provided (a) the bona fide farm is a lot or parcel located outside the corporate limits of Hillsborough (i.e., is in the extraterritorial zoning jurisdiction, and (b) the lot line with respect to which the setback exemption is sought lies adjacent to other property zoned AR or to property outside Hillsborough's zoning jurisdiction.

6.4 AIR POLLUTION

6.4.1 PURPOSE AND INTENT

It is the intent of this section to protect and promote the public health, safety, and general welfare by regulating air pollution and contaminants in order to provide clean air. Any permitted principal use, Special Use, Conditional use, or accessory use that emits any "air contaminant" as defined in N.C. Gen. Stat. § 143-213, shall comply with applicable State of North Carolina standards concerning air pollution, as set forth in Article 21B of Chapter 143 of the North Carolina General Statutes.

6.4.2 STANDARDS AND REQUIREMENTS

No Zoning Compliance Permit shall be issued with respect to any development emitting an "air contaminant" until the NC Department of Environment and Natural Resources, Division of Air Quality, has certified to the Planning Director that the appropriate State permits have been received by the applicant (as provided in G.S. 143-215.108) or that the applicant will be eligible to receive such permits and that the development is otherwise in compliance with applicable air pollution control regulations. If a State permit is required, but has not yet been approved at the time the Town is about to issue a Zoning Compliance, the Town's Zoning Compliance shall be issued subject to a condition that no CO may be issued until the State permit has been issued.

6.5 BUFFERS

6.5.1 PURPOSE AND INTENT

It is the intent of this section to protect and promote the public health, safety, and general welfare by regulating the spacing of adjacent land uses. Buffers are required where differences in adjacent zoning designations suggest that spatial separation is necessary to offset potential adverse impacts of adjacent uses. Screening requirements to mitigate the impacts of specific activities like parking or solid waste storage are addressed in Section 6.16, Screening.

6.5.2 APPLICABILITY

- a) Buffers will generally be established at the earliest review phase (*for example: lot creation*), once uses and densities are proposed in accordance with applicable regulations. However, a buffer standard may be amended prior to the issuance of a Zoning Compliance Permit subsequent to any changes including but not limited to zoning classification or development adjacent to the subject parcel.
- b) This Subsection applies to any of the following, except where exempted by Sub-paragraph c) below:
 - 1) The construction or erection of any new building or structure for which a Zoning Compliance Permit, Conditional or Special Use Permit, or Site Plan approval is required; or
 - 2) Any enlargement exceeding 5,000 square feet or 25% in area, whichever is less, of the gross floor area an existing building for which a development approval is required; or
 - 3) Any construction of a new parking lot or expansion of an existing parking lot OR establishment or expansion of an accessory use not involving a structure by more than 2,000 square feet or 10% in area, whichever is greater.

c) This Subsection does not apply to the following situations:

- 1) Single-family dwelling units and mobile/manufactured homes on existing lots of record;
- 2) Agricultural uses;
- 3) Non-residential uses that abut other non-residential uses in the same zoning district;
- 4) Interior finish work or remodeling in a portion of a building unless the work results in an increase as described in 6.5.2.b.2 or 6.5.2.b.3 above;
- 5) Any use, building or structure for which only a change of use is requested, and which use does not increase the gross floor area of the existing building.

6.5.3 LOCATION OF BUFFERS

Buffers shall be located on commonly held open space or the outer perimeter of a lot or parcel, extending to the lot or parcel boundary line. Buffers shall not be located on any portion of an existing or dedicated public or private street or right-of-way.

6.5.4 BUFFER DESCRIPTIONS AND STANDARDS

- 6.5.4.1 The following tables describe four types of buffer (A, B, C, and D) and different width, plant density, and structure combinations which meet the standard. Buffer requirements are stated in terms of the width of the buffer and the number of plant units required per 100 linear feet of buffer. The requirements of a specific buffer may be satisfied by any of the types provided. The type and quantity of plant materials required by each buffer type are specified in this Section. Specific species allowed and prohibited are listed in the Administrative Manual by size.

Table 6.5.4.1: Standards for Type A Buffers

Buffer Type	Required Buffer Width	Minimum # Plantings Required Per 100 Linear Feet of Buffer		Structure Type & Height Required
A1	10 Feet	Large Trees	1	Not Required
		Small Trees or Large Shrubs	2	
		Mid-size or Small Shrubs	4	
A2	15 Feet	Large Trees	0	Not Required
		Small Trees or Large Shrubs	3	
		Mid-size or Small Shrubs	4	
A3	20 Feet	Large Trees	0	Not Required
		Small Trees or Large Shrubs	5	
		Mid-size or Small Shrubs	0	

Table 6.5.4.2: Standards for Type B Buffers

Buffer Type	Required Buffer Width	Minimum # Plantings Required Per 100 Linear Feet of Buffer		Structure Type & Height Required
B1	15 Feet	Large Trees	3	8-foot Fence
		Small Trees or Large Shrubs	0	
		Mid-size or Small Shrubs	0	
B2	20 Feet	Large Trees	2	6-foot Fence
		Small Trees or Large Shrubs	4	
		Mid-size or Small Shrubs	0	
B3	25 Feet	Large Trees	3	Not Required
		Small Trees or Large Shrubs	4	
		Mid-size or Small Shrubs	0	
B4	30 Feet	Large Trees	3	Not Required
		Small Trees or Large Shrubs	0	
		Mid-size or Small Shrubs	16	
B5	40 Feet	Large Trees	2	Not Required
		Small Trees or Large Shrubs	2	
		Mid-size or Small Shrubs	10	
Fences in the Type B buffer shall be wood, metal, brick, masonry, or stone and are not required to be opaque. Acceptable styles include picket, post and rail, alternating board, stockade, and pierced or open block. The use of chain link with vinyl slats, vinyl, galvanized or sheet metal are not acceptable.				
At least 50% of the shrubs for Type B buffers shall be evergreen, based on the number of plants required in the table				

Table 6.5.4.3: Standards for Type C Buffers

Buffer Type	Required Buffer Width	Minimum # Plantings Required Per 100 Linear Feet of Buffer		Structure Type & Height Required
C1	25 Feet	Large Trees	3	8-foot Masonry Wall or stockade fence
		Small Trees or Large Shrubs	6	
		Mid-size or Small Shrubs	0	
C2	30 Feet	Large Trees	3	6-foot Masonry Wall or stockade fence
		Small Trees or Large Shrubs	2	
		Mid-size or Small Shrubs	10	
C3	40 Feet	Large Trees	3	5-foot Earthen Berm
		Small Trees or Large Shrubs	7	
		Mid-size or Small Shrubs	12	
C4	50 Feet	Large Trees	5	4-foot Earthen Berm
		Small Trees or Large Shrubs	5	
		Mid-size or Small Shrubs	14	
C5	60 Feet	Large Trees	4	Not Required
		Small Trees or Large Shrubs	7	
		Mid-size or Small Shrubs	34	
Walls may be brick, concrete, concrete block with stucco finish, masonry, stone or a combination of these materials.				
At least 50% of the shrubs for Type C buffers shall be evergreen, based on the number of plants required in the table.				
Berms shall have a slope not greater than the slope created in 3 horizontal feet with a 1-foot vertical rise. The surface of the berm that is not planted with trees and shrubs shall be covered with grass, perennial ground cover, vines, and woody and herbaceous perennials, with mulch. Grass or other coverings shall be maintained in conformance with applicable Town of Hillsborough codes.				

Table 6.5.4.4: Standards for Type D Buffers

Buffer Type	Required Buffer Width	Minimum # Plantings Required Per 100 Linear Feet of Buffer		Structure Type & Height Required
D1	100 Feet	Large Trees	8	5-foot Earthen Berm
		Small Trees or Large Shrubs	13	
		Mid-size or Small Shrubs	34	
D2	100 Feet	Large Trees	12	Not Required
		Small Trees or Large Shrubs	10	
		Mid-size or Small Shrubs	20	
D3	100 Feet	Large Evergreen Trees	20	
Berms shall have a slope not greater than the slope created in 3 horizontal feet with a 1-foot vertical rise. The surface of the berm that is not planted with trees and shrubs shall be covered with grass, perennial ground cover, vines, and woody and herbaceous perennials, with mulch. Grass or other coverings shall be maintained in conformance with applicable Town of Hillsborough codes.				

6.5.5. SPECIAL CASES AND CONSIDERATIONS

- 6.5.5.1. Where existing or proposed overhead electric lines exist, small trees may be substituted for large trees.
- 6.5.5.2. If the development on the adjoining use is existing, planned or deed restricted for solar access, understory trees may be substituted for canopy trees where canopy trees would destroy solar access.
- 6.5.5.3. Any existing plant material which otherwise satisfies the requirements of this Section may be counted toward satisfying all such requirements.
- 6.5.5.4. The exact placement of required plants and structures shall be the decision of each user except that the following requirements shall be satisfied:
 - 6.5.5.4.1. Evergreen plant materials shall be planted in clusters rather than singly in order to maximize their chances of survival.
 - 6.5.5.4.2. When a masonry wall is a component of the buffer, a planting area at least 5 feet wide containing 15% of the total plant requirements shall be located between the masonry wall and the higher intensity class use. These plants shall be chosen to provide species and sizes to reduce noise in conjunction with the wall.
 - 6.5.5.4.3. All buffer areas shall be seeded with lawn or other non-invasive ground cover unless ground cover is already established.

6.5.6. PLANT MATERIAL AND STRUCTURE SUBSTITUTIONS

- 6.5.6.1. In Type B and C buffers, evergreen trees may be substituted for deciduous trees of the same size category without limitation.
- 6.5.6.2. In Type A buffers, evergreen trees of the same size category may be substituted as follows:
 - 6.5.6.2.1. up to a maximum of 50% of the total number of the deciduous large trees otherwise required.
 - 6.5.6.2.2. without limitation for required deciduous small trees.
- 6.5.6.3. In all buffers, evergreen shrubs may be substituted for deciduous shrubs without limitation.
- 6.5.6.4. The following structures are equivalent and may be used interchangeably:

Structure	Equivalent
6-foot Fence	4-foot Earthen Berm
8-foot Fence	5-foot Earthen Berm
6-foot Masonry Wall	6-foot Earthen Berm
8-foot Masonry Wall	4-foot Berm with 6-foot Masonry Wall
4-foot Earthen Berm	6-foot Wood Stockade Fence
5-foot Earthen Berm	8-foot Wood Stockade Fence

6.5.7. SPECIAL CIRCUMSTANCES BASED ON ADJACENT CONDITIONS

- 6.5.7.1. Where the buffer required between a land use and vacant land turns out to be greater than that buffer which is required between the first use and the subsequently developed use, the subsequent use may provide one-half (.5) of the required buffer. The existing use may expand its use into the original buffer area, provided the resulting total buffer between the two uses meets the buffer requirements of Table 6.5.10.
- 6.5.7.2. When a parcel to be developed is adjacent to an Interstate or railroad right of way, a 100-foot undisturbed buffer shall be provided along the adjacent property line, regardless of

the requirement in Table 6.5.10. This buffer shall be planted to meet the standard of a Type D buffer if the existing vegetation does not meet that standard.

Exceptions to this requirement are as follows:

- a) If an existing public road separates the parcel where development is proposed from an Interstate or railroad right of way, no buffer shall be required. This section applies to constructed public roads, regardless of where the road right of way exists in relation to the railroad or Interstate right of way.
- b) If the applicant property is the redevelopment of an existing parcel with a platted land use buffer from a previous development code, the maintenance of that previously required buffer shall be taken to satisfy the Type D buffer.
- c) If the applicant property is of an existing single-family parcel where a land use buffer was not shown on the recorded plat creating the parcel, the Type D buffer will not be required.

6.5.7.3. When a non-residential parcel is adjacent to a street classified as arterial or collector, no buffer shall be required along the street frontage, regardless of the requirement in Table 6.5.10, unless modified by the permit-issuing authority.

6.5.7 USE AND DEVELOPMENT WITHIN BUFFERS

- 6.5.7.1 Buffers shall not contain any development, impervious surfaces or site features that do not function to meet the standards of this Subsection unless otherwise allowed.
- 6.5.7.2. Fences not required to satisfy buffer requirements may be placed in buffers provided that no canopy tree is removed and damage to existing vegetation is minimized.
- 6.5.7.3. Utility corridors are not permitted in buffers unless no reasonable alternative exists. Crossings at angles between 60 and 90 degrees are acceptable where necessary. Utilities may only run coincident or parallel with a required buffer if:
 - 6.5.7.3.1. the utility is installed on the development side of the buffer
 - 6.5.7.3.2. the buffer can meet the required performance standards even with the planting limitations associated with the utility easement
 - 6.5.7.3.3. no canopy trees within the buffer must be removed to install the utility.
- 6.5.7.4. Stormwater control mechanisms are discouraged from being located in buffers unless mandated by the natural topography. Such installations may locate within a required buffer if the buffer can meet the required width and planting densities for the required buffer type between the stormwater control mechanism and the adjoining use triggering the buffer.
- 6.5.7.5. A buffer may be used for passive recreation and contain pedestrian trails provided that:
 - 6.5.7.5.1. no canopy trees are eliminated,
 - 6.5.7.5.2. the total width of the buffer is maintained, and
 - 6.5.7.5.3. the required buffer standards (width, plantings, and fences) are met between the trail and the adjoining use triggering the buffer.
- 6.5.7.6. In no event shall playgrounds, swimming pools, tennis courts and other active recreation areas, storage of materials, parking or structures (except for necessary utility boxes and equipment) be allowed in buffers.

6.5.8 OWNERSHIP OF BUFFERS

6.5.8.1 No required buffer in a residential development shall be included within any single-family lot or be wholly owned (in fee simple absolute) by the owner of an individual residential building lot zoned for residential uses. Buffers in residential developments shall be owned by a homeowner's association or other entity charged with its preservation and the preservation of existing landscaping. Buffers may be collocated in areas designated as open space are required in Section 6.12 of this ordinance.

6.5.8.2 The required buffer for a non-residential or multi-family site may be owned by a property owner's association or by the property owner.

Figure 6-2: Required Buffer Placement



6.5.9 MAINTENANCE OF BUFFERS

6.5.9.1 Where a buffer is owned by a property owners association, the covenants for the development shall require that association to maintain the buffers and shall include a buffer maintenance plan.

6.5.9.2 For parcels that contain a buffer as part of a permit requirement, the property owner shall maintain the buffer. The site will be inspected at the end of the second growing season following permit issuance for compliance and during any subsequent development review to ensure continued compliance.

6.5.10 TABLE: REQUIRED BUFFERS

Applicant Zoning ↓	Adjacent Zoning									
	AR	R-40	R-20	R-15	R-10	MF	MFSU	MHP	ALN	RSU
AR										
R-40										
R-20										
R-15										
R-10										
MF	B	B	B	A	A		A	A		
MFSU	B	B	B	A	A	A		A	A	
MHP	B	B	B	B	B	A	A		A	
ALN	A	A	A	A	A	A	A	A		
RSU										
NB	A	A	A	A	A	A	A	A	A	
NBSU	A	A	A	A	A	A	A	A	A	
LO	B	B	B	A	A	A	A	A	A	A
OI	B	B	B	A	A	A	A	A	A	A
CC										
GC	B	B	B	B	B	B	B	B	B	B
HIC	C	C	C	B	B	B	B	B	B	B
LI	C	C	C	B	B	B	B	B	B	B
GI	C	C	C	B	B	B	B	B	B	B
ESU	C	C	C	B	B	B	B	B	B	B
BP	C	C	C	B	B	B	B	B	B	B
SDD	C	C	C	B	B	B	B	B	B	B
EDD	C	C	C	C	C	C	C	C	C	C

6.5.10 TABLE: REQUIRED BUFFERS (CONTINUED)

Applicant Zoning ↓	Adjacent Zoning												
	NB	NBSU	LO	OI	CC	GC	HIC	LI	GI	ESU	BP	SDD	EDD
AR	A	A	A	A		A	B	B	C	B	B	B	
R-40	A	A	A	A		A	B	B	C	B	B	B	
R-20	A	A	A	A		A	B	B	C	B	B	B	
R-15	A	A	A	A		A	B	B	C	B	B	B	
R-10	A	A	A	A		A	B	B	C	B	B	B	
MF	A	A	A	A		A	B	B	C	B	B	B	
MFSU	A	A	A	A		A	B	B	C	B	B	B	
MHP	A	A	A	A		A	B	B	C	B	B	B	
ALN	A	A	A	A		A	B	B	C	B	B	B	
RSU	A	A	A	A		A	B	B	C	B	B	B	
NB													
NBSU													
LO				A		A	A	A	A	A	A	A	
OI			A			A	A	A	A	A	A	A	
CC													
GC	A	A		A				A	A	A	A	A	A
HIC				B									A
LI				B									
GI				B									
ESU		C	C	C		C	C	C	C		C	C	A
BP		B	B	B		B	A	A	A			B	
SDD			B	A		B	B	B	B	A	A		B
EDD	A	A	A	A	A					A		B	

6.5.11 SOUTH CHURTON NON-RESIDENTIAL BUFFER

6.5.11.1 Intent

The intent of the South Churton non-residential buffer is to create visually appealing and landscaped frontage to the commercial core located along South Churton Street between Interstate-40 and the Eno River.

6.5.11.2 Applicability

All development of currently undeveloped parcels or significant redevelopment of parcels which abut the public right of way of South Churton Street between the Eno River and Interstate-40 shall include buffers satisfying the standards established herein as part of any site plan, conditional use permit or special use permit. This subsection provides implementation options to accommodate a variety of situations. "Significant redevelopment" shall mean redevelopment or renovation of an existing structure or vehicle accommodation area that disturbs 50% or more of the parcel area.

6.5.11.3 Requirements

- a) The South Churton buffer area shall be measured from the property edge of the South Churton Street right of way. The 1999 Feasibility Study for the widening of this facility required 100 feet of right of way for the improved South Churton Street. Any property undergoing development or significant redevelopment will need to dedicate any right of way not already secured for this project before certificates of occupancy will be issued for the property's requested improvements.
- b) The buffer shall be at least 30 feet wide and shall be improved with trees and landscaping consistent with Section 6.5.11.4 below.
- c) Immediately adjacent to the buffer, a property owner may install a paved drive aisle up to 24 feet wide OR a paved drive aisle and one row of perpendicular parking along the building frontage. The total pavement width adjacent to the buffer may not exceed 44 feet.
- d) New structures shall be setback at least 30 feet, but not more than 100 feet, from the edge of the right of way.

6.5.11.4 Options

- a) A landscaping density score will be calculated for each site subject to this buffer. The landscape density score for a parcel is determined by multiplying the length of property frontage along Churton Street by the width of the buffer. Table 6.5.11.g illustrates how the landscape density score is calculated.
- b) The landscaping density score calculation takes into consideration whether there is parking located between the building and the buffer, as shown on Table 6.5.11.g
- c) Preservation of existing landscaping is strongly encouraged and credit for preserved materials is greater than credit for new plantings, as indicated on Table 6.5.11.h.
- d) An applicant shall provide a landscaping plan and point calculation that demonstrates compliance for the site based on the two tables.
- e) Applicants are encouraged to group plantings within the required buffer to create a more natural appearance.
- f) Landscaping in the buffer need not be continuous. Breaks are expected at perpendicular

driveway and sidewalk crossings. Breaks up to 30 feet in width are also allowed to support the grouping of plant material and allow visibility for signage and buildings.

Table 6.5.11.g: Landscape density points by site characteristics			
Development option	Buffer formula	Example- 100 foot wide lot	Example – 200 foot wide lot
Building adjacent to buffer	$.5 * (\text{length} * \text{width})$	$.5(100 * 30) = 1500$	$.5(200 * 30) = 3000$
Drive aisle between building and buffer	$.6 * (\text{length} * \text{width})$	$.6(100 * 30) = 1800$	$.6(200 * 30) = 3600$
Parking and drive aisle between building and buffer	$.7 * (\text{length} * \text{width})$	$.7(100 * 30) = 2100$	$.7(200 * 30) = 4200$

Table 6.5.11.h: Plant Material Points				
Plant Material Type	Planted deciduous	Preserved deciduous	Planted evergreen	Preserved evergreen
Large Tree (species mature height = > 50')	625	900	725	1000
Small Tree (species mature height between 20' and 50')	64	100	70	110
Large Shrub (Species mature height greater than 6' but less than 20')	36	49	40	54
Small shrub (species mature height less than 6')	20	25	22	28

Evergreens are given higher point scores than deciduous materials due to the year-round screening and shading capacity.

Point values may be less than species reported canopy cover areas in landscaping resources because materials planted in urban settings often do not reach their full potential due to limits on soil quality, moisture availability, and fertilizer.

6.5.11.5 Development within Buffer

The following amenities and installations may be allowed by the permit issuing authority within this buffer if (i) the amenity is available for general public use or(ii) the installation is required by the Town of Hillsborough or other public utility:

- (a) Plazas
- (b) Sidewalks or walkways
- (c) Gardens
- (d) Seating areas
- (e) Decorative fences or walls not exceeding 4' in height
- (f) Freestanding signs otherwise compliant with the ordinance
- (g) Underground utilities
- (h) Overhead utilities only if in existence at the time of development

6.5.11.6 Maintenance of buffer

The buffer will be inspected at the end of the second growing season following permit issuance and during any subsequent development review for compliance with the South Churton non-residential buffer requirements. The town may pursue enforcement action against any property owner who does not maintain this buffer as allowed in Section 8 *Enforcement*.

6.6 CREATION OF NEW BUILDING LOTS

6.6.1 PURPOSE AND INTENT

It is the intent of this section to protect and promote the public health, safety, and general welfare by regulating the creation of new building lots in order to protect and preserve the appearance, character, and value of adjacent properties.

6.6.2 APPLICABILITY

All new residential and non-residential lots must meet the following requirements.

6.6.3 NEW LOT REQUIREMENTS

6.6.3.1 New lots shall generally have four sides and generally not have more than 8 sides to facilitate the enforcement of setback requirements and ensure that each lot is generally usable for its intended building proposed, unless existing topographic or natural features such as a stream or ridgeline acts as a boundary.

6.6.3.2 New building lots shall not have appendages less than twenty (20) feet in width and more than twenty (20) feet in length created to provide street access or to enable the lot to meet minimum lot size or frontage requirements.

- 6.6.3.3** Lots in residential zoning districts must have at least thirty (30) feet of frontage on a public or private street the lot uses for access.
- 6.6.3.4** Unless otherwise approved by the permit issuing authority, all lots shall meet the lot width requirement specified in Section 6.3, *General Dimensional Standards* at the front setback line. The permit issuing authority may waive this requirement during review of a Conditional or Special Use Permit for a development after consideration of lot depth, lot width, general usability of the building envelop on the parcel, and compatibility of the proposed lots with existing and proposed neighboring lots.

6.6.4 USABILITY OF LOTS

- 6.6.4.1** New lots created for building purposes must contain a buildable area at least 10 feet wide and at least 10 feet deep after application of setbacks requirements.
- 6.6.4.2** No new lot shall be created for building purposes that contains an area wholly within the required setbacks of opposing lot sides.

6.6.5 DIVERSITY IN SINGLE FAMILY DETACHED HOME NEIGHBORHOODS

In an effort to prevent monotonous and sterile built environments in areas containing single family detached dwellings, and to mimic the diverse character of many residential neighborhoods in the planning jurisdiction, variability of lot widths and lot sizes within new developments is encouraged.

- 6.6.5.1** Single family detached home developments containing 20 or more lots must have at least 3 different lot widths on each straight street section (may be multiple blocks) longer than 400 feet. Contiguous lot widths must vary by at least 10 feet to meet this standard.
- 6.6.5.2** Single family detached home developments containing 20 or more lots may provide an equal number of lots 10% smaller than the minimum lot size for each lot proposed that is 30% or more larger than the minimum lot size.
- 6.6.5.3** Single family detached home developments requiring a Special Use Permit may include lots up to 10' narrower than the district minimum standard and/or 10% smaller than the district minimum standard to meet the diversity standard established above and to maximize lot diversity, provided, however, that the average lot width and acreage lot area in the development must meet the district minimum standards.

6.7 DESIGN REQUIREMENTS FOR ALL NEW NON-RESIDENTIAL BUILDINGS

6.7.1 PURPOSE AND INTENT

It is the intent of this section to protect and promote the public health, safety, and general welfare by regulating the appearance of non-residential construction in order to protect and preserve the appearance, character, and value of adjacent properties. Where existing conditions such as limited visibility of the building or features make satisfying these requirements unnecessary or non-compliance with the design requirements achieves another town goal, the permit-issuing authority may modify the requirements based on competent evidence provided by the applicant to establish that alternatives provided by the applicant will satisfy the purpose and intent of the design requirements, and will protect the use, enjoyment and value of adjoining properties.

6.7.2 APPLICABILITY

The following general principles will apply to all new non-residential buildings which are:

- a) Located on parcels subject to the South Churton Street Buffer, or
- b) Located in any special use district, or
- c) Proposed for use by businesses with significant on-site customer or client foot traffic including but not limited to retail sales, restaurants, personal services, and/or offices and professional services (single use or multi-use buildings)

For the purposes of this subsection, a pedestrian side or façade is any façade with a public access door and any façade facing a public street.

6.7.3 ARTICULATION

- 6.7.3.1** The facade shall be articulated with design features or employ a level of architectural detailing sufficient to ensure visual interest and promote pedestrian scale
- 6.7.3.2** Design elements such as windows, columns, or bay spacing shall be kept as consistent as possible along the front façade
- 6.7.3.3** Building mass shall be articulated by vertical elements
- 6.7.3.4** Architectural features such as recesses and projections, door and window rhythm, columns, piers, varied rooflines, and brick patterns shall be used to divide and create vertical orientation
- 6.7.3.5** Horizontal design elements such as large fascias or banding designs are discouraged and shall be balanced with vertical elements
- 6.7.3.6** The proportion of structural elements such as posts and columns shall be appropriately scaled to the weight they appear to be carrying.

6.7.4 AWNINGS

- 6.7.4.1** The use of fabric awnings is encouraged for facades with retail display windows and other façade glass. Awnings constructed of material more substantial than fabric, or integrated into the building structure, are permitted only to protect customer access via a porte cochere.

6.7.5 BUILDING MASS

- 6.7.5.1** The majority of the building mass shall be placed close to the front setback line to help define the street edge
- 6.7.5.2** On corner lots the building mass shall be placed as near to the street intersection as possible to anchor the lot

6.7.6 DRIVE-THROUGH WINDOWS, CANOPIES, AND PORTE COCHERES

- 6.7.6.1** Drive-through windows, canopies, and porte cocheres shall be located on the side or rear of the building.
- 6.7.6.2** Drive-through windows, canopies, and porte cocheres shall be designed to be an integral part of the building architecture.

6.7.7 FAÇADE/ STREET EDGE

- 6.7.7.1** The front facade shall be oriented toward the street.
- 6.7.7.2** The exposure of the front façade shall be maximized by placing as much of the building width as possible at the front of the lot.
- 6.7.7.3** The front façade shall be integrated with the overall building architecture.
- 6.7.7.4** The tallest façade of the building shall be oriented toward the same street that the primary entrance faces.
- 6.7.7.5** False facades and similar applied designs are prohibited.
- 6.7.7.6** The first floor shall be architecturally differentiated from upper floors.
- 6.7.7.7** The use of porches, colonnades, canopies, or awnings on the front façade is encouraged.
- 6.7.7.8** An existing “street-edge” shall be reinforced by aligning the building façade with existing neighboring buildings which are close to the front setback line. Landscaping can also be used to reinforce this line.

6.7.8 FENESTRATION

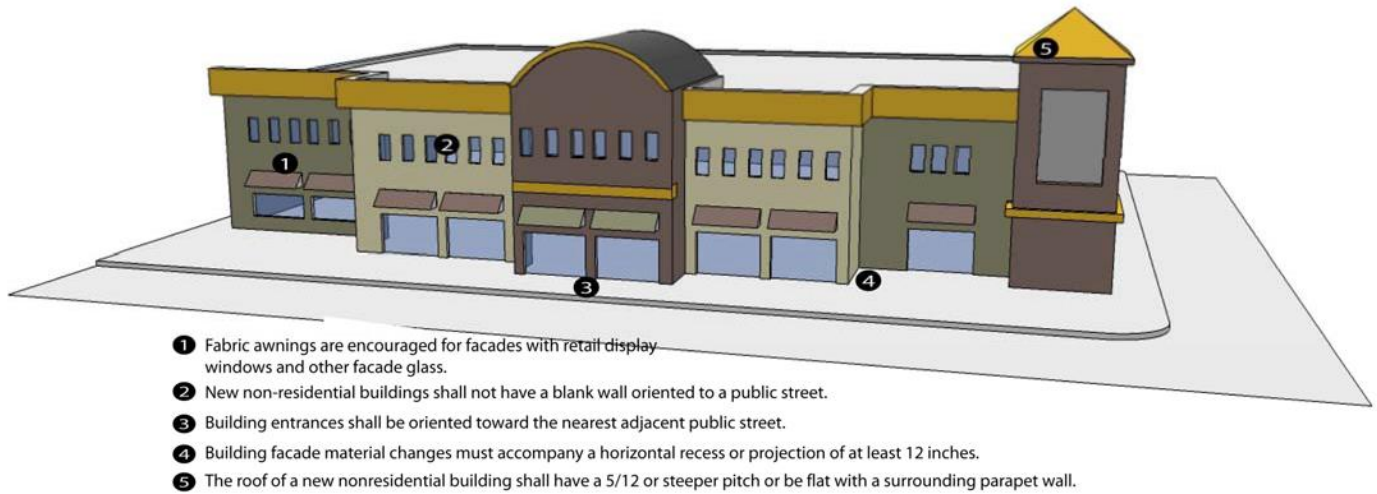
- 6.7.8.1** New non-residential buildings shall not have a blank wall oriented to a public street.
- 6.7.8.2** Openings such as windows and doors shall account for a minimum 50% on the pedestrian side of the ground floor and 30% of the pedestrian side on the upper floors.
- 6.7.8.3** Street level glazing shall be visually transparent, although UV coatings are permitted.
- 6.7.8.4** Reflective glass is prohibited on street level windows.
- 6.7.8.5** Windows shall have vertical orientation and have a minimum ratio of 1:2 except where storefront sheet glass or picture windows are employed.
- 6.7.8.6** Faux windows are prohibited. “Faux windows” include any wall treatment that replicates a traditional window placement or rhythm which makes the wall appear that windows once existed.
- 6.7.8.7** Larger scale design features such as garage doors shall be placed at the side or rear of the facility
- 6.7.8.8** The use of operable windows on upper floors of attached residential and office uses is encouraged.

6.7.9 MATERIALS

- 6.7.9.1** Changes of building materials shall occur at a change of plane, such as a recess, projection or an inside corner.
- 6.7.9.2** Structures shall not have material changes at their outside corners.
- 6.7.9.3** Primary building materials shall consist of wood, masonry, concrete, glass, or stone. Metal can be acceptable as an accent material or architectural feature.
- 6.7.9.4** Materials shall be kept consistent across the façade, unless material changes are employed to enhance individual bays and occur at a change of plane.

- 6.7.9.5** When multiple materials are used on a façade, one material should be used as the dominant theme with the others acting only to compliment or accentuate the design.

Figure 6-3: Non-Residential Design Standards



6.7.10 ORIENTATION/ENTRANCE LOCATION

- 6.7.10.1** All new primary buildings shall have entrances oriented toward, and be accessible from the nearest public street.
- 6.7.10.2** Primary building entrances shall be clearly defined and articulated
- 6.7.10.3** Primary building entrances shall be (a) placed at the front of the building facing the front lot line and (b) clearly identifiable from the street.
- 6.7.10.4** If it is not feasible to place the building entry directly on the front façade, the entry shall be placed where it is readily visible and faces the main road or internal street.
- 6.7.10.5** Pedestrian access to buildings shall be provided from the street and from parking areas.
- 6.7.10.6** Entries from parking areas shall be secondary in articulation and nature, relative to street entrances.
- 6.7.10.7** An entry shall be placed at least every 150 feet along the front façade.

6.7.11 ROOF PITCH

- 6.7.11.1** Flat roofs shall be capped by a parapet wall of sufficient height to screen any rooftop equipment from view when standing at ground level 20 feet from the structure.
- 6.7.11.2** Sloped roof structures must maintain a pitch between 5:12 minimum and 12:12 maximum on all primary roof areas (Not including dormers, entry canopies, or similar elements)
- 6.7.11.3** Buildings with sloped roofs shall have roof overhangs between 6" and 18" deep.

6.7.12 STORAGE AND OUTBUILDINGS

- 6.7.12.1** Storage buildings and outbuildings shall be located behind the primary building or shall be architecturally compatible with the primary building.
- 6.7.12.2** Storage buildings and outbuildings shall be architecturally compatible with the primary building.

6.7.13 TRANSPARENCY

- 6.7.13.1** Glass that is installed on the first floor of the front façade of new buildings, within which the first floor occupants are intended to be retail, restaurant or service business, will be transparent with low reflectivity.

6.8 DESIGN REQUIREMENTS FOR ALL NEW RESIDENTIAL BUILDINGS

6.8.1 PURPOSE AND INTENT

It is the intent of this section to protect and promote the public health, safety, and general welfare by regulating the appearance of residential construction in order to protect and preserve the appearance, character, and value of adjacent properties. Where existing conditions such as limited visibility of the building or features make satisfying these requirements unnecessary or non-compliance with the design requirements achieves another town goal, the permit-issuing authority may modify the requirements based on competent evidence provided by the applicant to establish that alternatives provided by the applicant will satisfy the purpose and intent of the design requirements, and will protect the use, enjoyment and value of adjoining properties.

6.8.2 APPLICABILITY

All new single family detached dwellings in residential developments requiring a Special Use Permit must meet the following general principles.

6.8.3 ENTRANCES

- 6.8.3.1** The front door shall face the front of the lot.

6.8.4 GARAGES, CARPORTS, AND ACCESSORY STRUCTURES

- 6.8.4.1** Garage, carport, and other accessory structure entries shall not be located closer to the front lot line than the façade wall which contains the front door.
- 6.8.4.2** Garages, carports, and accessory structures shall not exceed 40% of the primary structure's building footprint.
- 6.8.4.3** Garages, carports, and accessory structures shall not be greater in height than the primary structure.
- 6.8.4.4** Garages, carports, and accessory buildings shall not exceed fifty percent (50%) of the width of the front facade of the primary structure.
- 6.8.4.5** Detached garages are encouraged.

6.8.5 VARIATION

- 6.8.5.1** Variation of exterior building materials and exterior façade arrangements from house to house is encouraged to allow easy identification of houses from the street. Excessive variation of façade planes, roof pitches, and building materials on an individual structure is discouraged.

6.9 DRIVEWAY CONNECTIONS

6.9.1 PURPOSE AND INTENT

It is the intent of this section to protect and promote the public health, safety, and general welfare by requiring that driveways shall be designed and located so as to minimize the number of conflict points among vehicular movements, to coordinate the location and the alignment of major driveway connections (ingress to or egress from heavy traffic generators such as shopping centers and supermarkets) and roadway intersections on opposite sides of the intersected street, to discourage dangerous vehicular movements, to minimize conflicts with pedestrian traffic, to avoid driveway connections at locations where adequate, safe sight distances cannot be provided, and to ensure driveway connections are designed to accommodate storm water runoff. The use of cross access easements connecting independent, adjacent developments is encouraged, so as to reduce the number of driveway curb cuts to the public right-of-way.

6.9.2 APPLICABILITY

These requirements shall apply to all development types, except one and two-family dwellings.

Figure 6-4: Driveway Connections



6.9.3 DRIVEWAY REQUIREMENTS

- 6.9.3.1** No driveway shall be located within two hundred fifty (250) feet of the intersection of a public street with an arterial or collector street unless no other site access is legally practicable.
- 6.9.3.2** No drive shall be located closer than twenty-five (25) feet to the right-of-way of any local street intersection. At intersections with traffic signals, the Planning Director shall specify distances from the right-of-way to allow for sufficient stacking of vehicles in the street prior to the driveway location.
- 6.9.3.3** When access is available to a lot from streets of different classifications (e.g., arterial, collector, sub-collector), the driveway will be located so as to provide access to the lot from the street with the lower classification.
- 6.9.3.4** In parking lots where large hourly volumes of entering traffic may be expected, the developer shall provide a setback between pavement edge of the public roadway and the edge of proposed internal drives to accommodate stacking within the parking lot. This setback shall be determined by the Planning Director based on standards required by NCDOT, the Institute of Traffic Engineers, or other recognized standard.
- 6.9.3.5** On curb and gutter streets, the North Carolina Department of Transportation standard concrete driveway ramp shall be used. The Planning Director may allow street type driveway entrances for high volume traffic uses.
- 6.9.3.6** Driveway connections shall be designed to accommodate stormwater to ensure that gravel does not wash into the public street. Connections which are above the grade of the existing street shall be graded so that drainage is directed into ditches designed to accommodate the drainage, or into the street gutters. The driveway shall be at the same elevation as the existing street across the width of the street right-of-way. If gravel or other materials wash onto the public street, the property owner shall be responsible to remove the material and establish safe conditions.
- 6.9.3.7** Driveways shall be a minimum of one hundred feet (100') apart when access is to a collector or arterial street.
- 6.9.3.8** Driveways shall be clearly defined with the use of curbs and/or landscaping.
- 6.9.3.9** Driveways on opposite sides of the street shall either be offset by at least fifty feet (50') or aligned, unless such standards cannot be met for safety reasons.

6.10 LANDSCAPING (PARKING LOT)

6.10.1 PURPOSE AND INTENT

It is the intent of this section to protect and promote the public health, safety, and general welfare by requiring the landscaping of parking areas in order to reduce radiant heat from surfaces, reduce glare of automobile lights, minimize stormwater and drainage problems, and protect and preserve the appearance, character, and value of adjacent properties. Where existing conditions such as topography, structures, or other existing features make satisfying these requirements impractical, the permit-issuing authority may modify the requirements based on competent evidence provided by the applicant to establish that alternatives

provided by the applicant will satisfy the purpose and intent of the buffer and landscape requirements, and will protect the use, enjoyment and value of adjoining properties.

6.10.2 APPLICABILITY

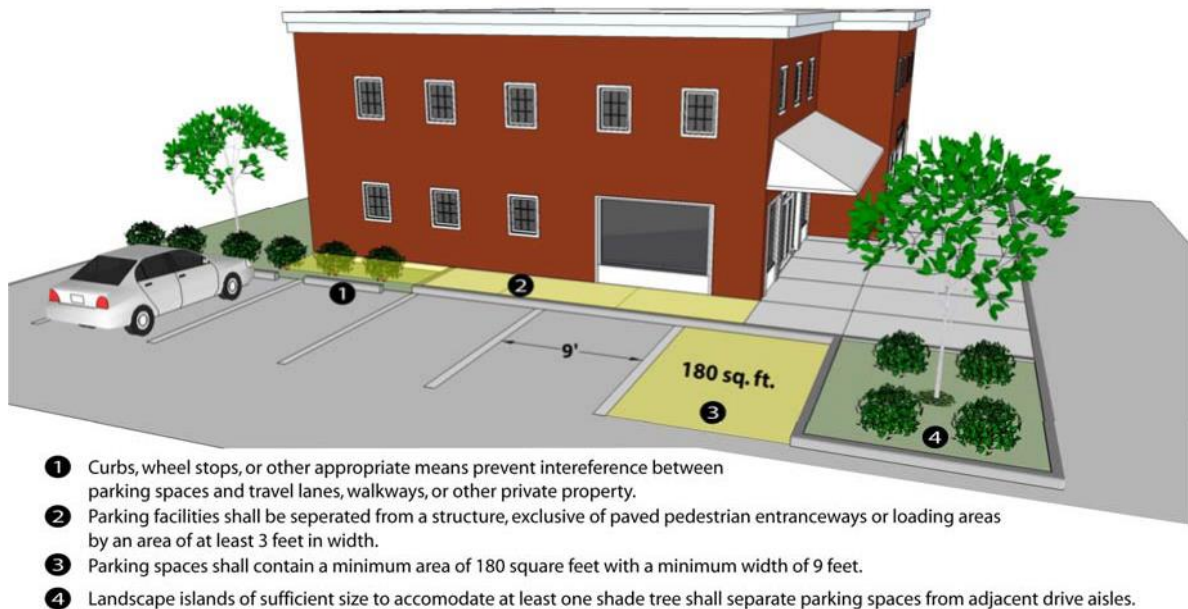
These requirements shall apply to all development types with the exception of one and two-family dwellings.

6.10.3 LANDSCAPING REQUIREMENTS

- 6.10.3.1** Parking lots shall contain at least 1 shade tree for every seven parking spaces required for the site. These trees shall be located a sufficient distance from existing overhead utility lines to ensure the health and growth of the tree.
- 6.10.3.2** Trees shall be evenly distributed throughout the parking areas and parking perimeter at the required ratio.
- 6.10.3.3** No more than 14 continuous parking spaces shall be allowed without a minimum of 1 landscape island containing a shade tree.
- 6.10.3.4** All planting medians or islands in parking lots shall be at least 10 feet X 10 feet measured from back of curb to back of curb (or pavement edge if the island is not curbed for stormwater purposes). When an island contains one or more shade trees, the island must have at least 300 square feet of unpaved space per shade tree.
- 6.10.3.5** Linear planting strips between the lengths of parking isles are encouraged rather than numerous small tree islands. If a linear strip is used, 15 shrubs (no taller than 3 feet at maturity) per 100 feet of planting strip must be planted in addition to the required trees.
- 6.10.3.6** A minimum 10 foot wide continuous planted median shall be installed in off-street parking areas for every 2 double loaded parking bays exceeding 122 feet in length. Alternative landscaping layouts and arrangements which similarly visually break up large parking areas will be considered by the permit issuing authority
- 6.10.3.7** Parking facilities, unless located on or within a structure, shall be separated from the exterior wall of a structure by a landscaped area at least five (5) feet in width;
- 6.10.3.8** Ground level parking facilities and the ground level of any parking structure shall provide a minimum of 10' planted setback area around parking perimeter, whether along a side street, property line, driveway, or undeveloped portion of the site. Within this setback, an opaque screen or fence to a height of at least 3 feet shall be required when the adjoining land is in residential use or a street.
- 6.10.3.9** In meeting these standards, the retention of existing significant vegetation shall be encouraged. The site plan submitted shall locate and identify all existing and proposed trees and shrubs used for parking standards.
- 6.10.3.10** Landscaping and walkways shall be installed to indicate the preferred travel pattern for pedestrians.
- 6.10.3.11** Landscaping shall be protected from damage by motor vehicles.

- 6.10.3.12** Lot areas not covered with paving, parking, buildings, or walkways shall be landscaped. The preferred surface is grass outside of planting beds although reasonable use of mulch and other materials will be considered.

Figure 6-5: Landscaping (Parking Lot)



6.11 LIGHTING

6.11.1 PURPOSE AND INTENT

It is the intent of this section to protect and promote the public health, safety, and general welfare by establishing criteria and standards for providing uniform lighting in outdoor public places where safety and security are concerns, protecting drivers and pedestrians from disabling glare from non-vehicular light sources that shine directly into their eyes and thereby impair safe traverse, protecting neighbors from nuisance glare from poorly aimed or inadequately shielded light sources, and providing lighting which is efficient and compatible with surrounding uses and structures.

6.11.2 APPLICABILITY

Lighting plans shall demonstrate that sufficient light will be available to provide security for property and people using public facilities and common areas after dark. This includes, but is not limited to, roads, driveways, walkways, bikeways, parking lots, and recreational areas.

Lighting plans will be reviewed as part of the review process for all permit applications. Modifications to approved or existing lighting shall be submitted to the Planning Director for review and compliance with applicable requirements.

6.11.3 LIGHTING REQUIREMENTS

Lighting plans shall include a layout of proposed fixture locations (including wall mounted lights, ground mounted lights, and illuminated signs), foot candle data that demonstrate

conforming intensities and uniformities; and a description of the equipment (catalog cuts), glare control devices, lamps, mounting heights and means, hours of operation, and maintenance methods proposed. Illumination intensities (lighting contours) may be shown on an independent plan or integrated with other required plans.

6.11.4 MINIMUM LIGHT LEVELS

- 6.11.4.1** Parking areas, whether surface or in a structure, shall have a minimum light intensity of 1.0 footcandles.
- 6.11.4.2** Interior sidewalks, those sidewalks that connect buildings to parking areas, common areas, of facilities within a development that are likely to be used at night, shall have a minimum light intensity of 0.5 footcandles.
- 6.11.4.3** Minimum lighting levels in this subsection are not required to be met by non-residential uses during non-business hours.

6.11.5 MAXIMUM LIGHT LEVELS

- 6.11.5.1** All outdoor lighting shall be designed and located such that the maximum illumination measured in foot candles at the light source's property line shall not exceed two tenths (0.2) foot candle measured at ground level where the adjoining property is zoned or used for residential purposes.
- 6.11.5.2** Light intensities shall not exceed fifteen (15) foot-candles at any location on the site to limit glare and blinding caused by significant light variations across a site. The permit issuing authority may consider an applicant's unique situations and use requirements during the development review and may allow greater intensities within the site.

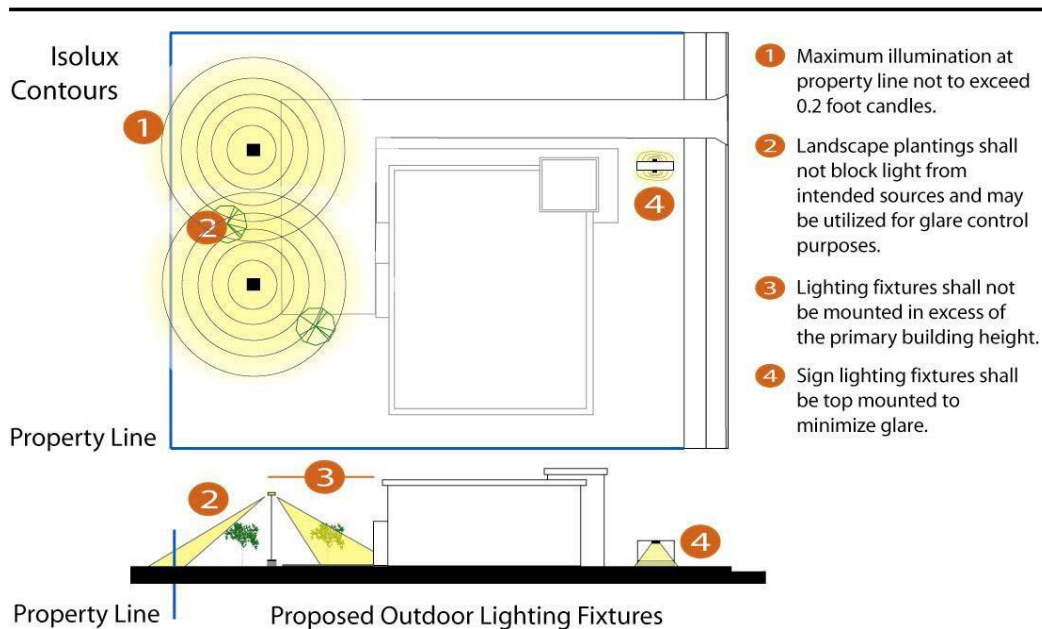
6.11.6 INSTALLATION

- 6.11.6.1** Lighting fixture height shall not exceed twenty-five (25) feet or the maximum height of the main portion of the primary buildings on the site (excluding spires, towers, parapet walls and the like), whichever is taller. For sites where no building is proposed, mounting height for fixtures shall not exceed fifteen (15) feet for non-cutoff type fixtures or twenty-five (25) feet for cut-off type fixtures. This provision shall not apply to outdoor athletic field or outdoor performance area lighting provided the other applicable requirements of this section are met.
- 6.11.6.2** Electrical feeds to lighting standards shall be run underground, not overhead.
- 6.11.6.3** Lighting standards in parking areas shall be protected from vehicle impact with protective barriers or by location. Standards should not be placed so as to obstruct pedestrian movement along sidewalks or medians.
- 6.11.6.4** Directional lighting fixtures used for sign lighting shall be top mounted so lighting is aimed down. Ground mounted signs with a height of five (5) feet or less may be ground lit, provided that the lights are shielded so as to illuminate the sign only, and the light shall not exceed 10 foot-candles at the sign surface.
- 6.11.6.5** Fixtures shall be of the sharp cut-off type. No portion of the fixture bulb may extend below the fixture housing. Non-cutoff type fixtures may be used if approved by the

permit issuing authority with good cause shown during the permit review and such fixtures meet the other standards of this section.

- 6.11.6.6** Unshielded wall fixtures shall not be used as security or general lighting adjacent to residential uses or to a public right of way.
- 6.11.6.7** Landscape plantings shall be located and maintained so that they do not block light from reaching the intended surfaces.
- 6.11.6.8** The placement of light fixtures should indicate the desired traffic flow and aid pedestrian safety, especially in areas with potential conflict between pedestrians and vehicles.
- 6.11.6.9** Low intensity strings of lights or individual lighting fixtures may be installed in outdoor seating areas to create visibility for nighttime use or as part of window displays oriented toward pedestrians in areas with significant foot traffic. Lights may remain illuminated when the business is closed if the lights are not installed on the same floor level and/or installed within 100 feet of a dwelling. No individual bulb may exceed a lighting intensity of 250 lumens or color temperature of 3000 Kelvin. Fixtures of this type are not subject to the requirements of 6.11.6.5 or 6.11.6.6. This section will be enforced in concert with 6.18.9.5 so the intent of both sections is met.

Figure 6-6: Exterior Lighting Requirements



6.11.7 CONTROL OF NUISANCE AND DISABLING GLARE

- 6.11.7.1** All outdoor lighting, shall be designed, installed and maintained in a manner which does not present a disabling glare hazard to drivers or pedestrians; and all reasonable means shall be taken to prevent projection of nuisance glare onto neighboring properties or into the night sky.
- 6.11.7.2** Lighting for sports and athletic fields must include glare control features and must be

designed so that primary illumination is directed onto the play area and ancillary areas such as bleachers, stands, and similar areas. All lighting fixtures for sports fields must be equipped with a glare control package including louvers, shields, or similar devices. The fixtures must be aimed so that their beams are directed and fall within the primary playing or performance area.

6.11.7.3 In reviewing lighting plans, the permit issuing authority may consider the impact of lighting on neighboring properties based on stated hours of operation, topographical differences across sites, and other considerations.

6.11.7.4 Glare control shall be accomplished primarily through the proper selection and application of lighting equipment and shielding. Only after those means have been exhausted shall vegetation, fences, or similar buffer methods be considered for reducing glare.

6.11.8 MAINTENANCE

6.11.8.1 Lighting fixtures used for safety and security lighting shall be maintained in proper working order so as to always meet the requirements of this Ordinance.

6.12 OPEN SPACE

6.12.1 PURPOSE AND INTENT

It is the intent of this section to protect and promote the public health, safety, and general welfare by requiring the dedication of a portion of land for the purpose of preserving open space and the protection of significant natural features and/or cultural resources.

6.12.2 APPLICABILITY

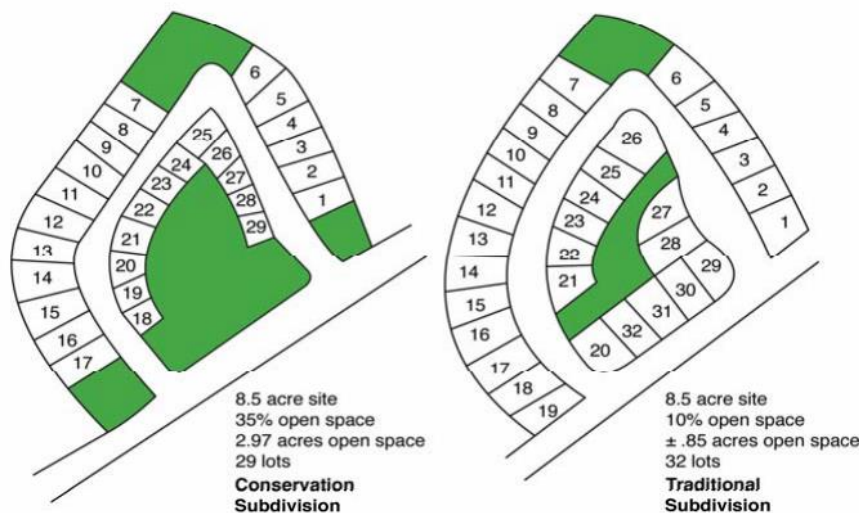
Every applicant for a Master Plan, Conditional Use Permit or Special Use Permit for residential and/or non-residential purposes involving the creation of multiple lots from a parent parcel shall be required to dedicate a portion of the parcel for the purpose of preserving open space, and to preserve significant natural features and/or cultural resources.

6.12.3 DEDICATION REQUIREMENTS

6.12.3.1 The applicant shall provide land for open space within the proposed development equal to 10% of the gross parcel (development tract) area unless the development is a conservation subdivision, in which case the requirement is 35% of the gross parcel (development tract).

6.12.3.2 Open space shall be accessible to all lots in the development through a combination of direct access to the street and sidewalks, walkways or connecting paths.

Figure 6-7: Open Space Illustrations



6.12.4 PERMITTED USES WITHIN OPEN SPACE:

- (a) Buffers required in Section 6.5, *Table of Required Buffers*
- (b) Riparian buffers required in Section 6.20.16, *Riparian Buffers*
- (c) Undeveloped land without a designated purpose held by a property owners association or non-profit conservation entity

6.12.5 PROHIBITED USES WITHIN OPEN SPACE:

- (a) Stormwater management ponds, swales, conveyances, and treatment areas
- (b) Recreation space
- (c) Reserved rights of way
- (d) Utility, drainage, or access easements
- (e) Any land held in private ownership rather than commonly held by a property owners association or non-profit conservation entity

6.12.6 ADDITIONAL PERMITTED USES WITHIN OPEN SPACE AREAS

6.12.6.1 Open space has no purpose that requires the construction of structures or modification of the existing landscape or grade. An applicant may propose fences, community gardens, and passive uses including walking trails, available to the public or restricted to occupants of the development, at the time of development review. The applicant shall construct any trails proposed, which may count toward a recreational requirement in Section 6.15, *Recreation Sites*.

6.12.6.2 Utility easements may cross common open space if necessary to connect to the area network. To the maximum extent practicable, utility easement

intersections with open space shall be perpendicular to minimize land disturbance. In no case shall a utility easement run coincident with an area of common open space for a length of more than 50 feet without specific authorization by the permit issuing authority and a plan for mitigating the impact of the disturbance on the intent of the open space.

6.12.6.3 Design Requirements

All residential developments shall provide walkways connecting residences and open or common areas. This may be accomplished with sidewalks along street frontages or walkways through recorded access or utility easements.

6.12.7 LAND CHARACTERISTICS

6.12.7.1 To prevent open space from becoming a nuisance, all open space within a development shall be accessible from a public right of way.

6.12.7.2 Open space shall be arranged to have both contiguity and connectivity within the development dedicating the open space and to any surrounding dedicated open space. For the purposes of this paragraph, contiguity shall mean that the parcel being offered as open space is of sufficient area to be meaningful in achieving the intent of open space and connectivity shall mean that the parcel being offered as open space shall be located so that a person or wildlife can move between open space parcels without traveling across private property or along a public road or sidewalk.

6.13 PARKING, LOADING, AND CIRCULATION

6.13.1 PURPOSE AND INTENT

It is the general intent of this section to provide for off-street parking and loading areas that are safe, convenient and of adequate size for the particular use or uses proposed. No Zoning Compliance Permit or Certificate of Occupancy shall be issued for uses of land, structures, and buildings, either initially, or for a change in use, or expansion of an existing use, unless the off-street parking and loading requirements of this section are met.

6.13.2 APPLICABILITY

The requirements of this section apply to all developments, regardless of zoning designation, with the exception of one and two family detached houses.

6.13.3 OFF-STREET PARKING PROVISIONS

6.13.3.1 General

Each of the following uses shall provide off-street parking spaces in accordance with the table below; except for properties located in CC District as detailed in Section 6.13.3.2, *Minimum Number of Parking Spaces Required in the CC District*. The term "per employee" shall mean per employee at the time the maximum number of employees are present.

6.13.3.2 Minimum Number of Parking Spaces Required in the CC District

Due to the presence of on-street and off-street public parking and the

overlapping and walkable nature of areas zoned Central Commercial, the requirement of parking applies by square feet of building within the entire Central Commercial district rather than use by use.

In 2010, the town prepared an inventory of downtown parking. Any off-street parking shown in that inventory (Parking Study, Phase 2) should be retained by the private property owner or replaced space for space if proposed to be built over.

For every 500 square feet of gross floor area within the CC district, one parking space shall be provided. If a property owner proposes to build additional building area or renovate space not occupied during the 2010 inventory, the owner shall provide additional parking to reflect the demand generated by the addition of occupied square footage. Parking demand of 0.7 parking space or more shall be rounded up.

6.13.3.3 Minimum Number of Parking Spaces Required outside the CC district

The following Table establishes the formulas to be used to calculate the number of parking spaces required for a particular use. If no specific parking standard is established in this Table for a particular use, the permit issuing authority shall apply the most analogous standard. Some uses identified in this Table are not identified the Table of Permitted Uses as specific uses. Nevertheless, parking standards for the most similar use shall apply.

6.13.3.4 Parking Provisions for Uses Not Specifically Listed

Any use not listed specifically in Table 6.13.3.5 shall meet the off-street parking and loading requirements determined by the permit-issuing authority. In making the determination, the permit-issuing authority shall use the standards as set forth in Table 6.13.3.5 for those uses which they find most similar to the proposed use.

6.13.3.5 Table: Minimum Number Of Parking Spaces Required

USE TYPE	PARKING STANDARD
Adult Day Care	1 per staff person plus 1 per 8 clients
Adult Use	1 per 200 sf GFA
Amusement arcade	1 per game table, video game or amusement device
Athletic Field	10 spaces
Artisan Studio	1 per 300 sf GFA
Bank & Financial Institution	1 per 300 sf GFA
Bar	1 per 2 seats
Bed and Breakfast Facility	1 per guest room + 2 for owners residence
Billiard or Pool Hall	2 per table or lane
Botanical Garden & Arboretum	2 spaces per acre
Building/Trade Contractor's office	1 per 300 sf GFA
Bus Passenger Shelter	None

6.13.3.5 Table: Minimum Number Of Parking Spaces Required

USE TYPE	PARKING STANDARD
Cemetery	None
Cemetery, Faith Based	None
Child Day Care	1 per staff person plus 1 per 8 students
Church, Place of worship	1 per 8 seats
Club or Lodge	1 per 4 members
Community Center	1 per 6 seats or 1 per 30 sf GFA is no permanent/fixed seating
Detention facility	1 per staff person on max employment shift plus 10 visitor spaces
Drive-up Window	None
Dry Cleaning or Laundry Plant	1 per staff person plus 5 client spaces
Dwelling: Accessory	2 per primary dwelling plus 1 per bedroom in accessory dwelling
Dwelling: Attached (1-4 units)	2 per unit
Dwelling: Attached (5-19 units)	2 per unit
Dwelling: Attached (20+ units)	2 per unit when the development has 100 or fewer units, 1 per bedroom plus 1 visitor space per 25 units when the development has more than 100 units
Dwelling: Mobile Home A	NA
Dwelling: Mobile Home B	NA
Dwelling: Mobile Home C	NA
Dwelling: Single-family	NA
Electronic Gaming Operation	none
Event Center	1 per 100 sf GFA
Extended Care Facility	.3 per room
Extraction of earth products	1 per employee plus 1 per facility vehicle
Family Care Home	.3 per room
Family Child Care Home	1 per 375 sf GFA
Farm, Bona fide	None
Farmer's Market	1 per 300 sf GFA of public sale area
Flex Space	1 per 300 sf GFA
Food Preparation Business	1 per staff person on max employment shift plus retail standard if direct retail sales allowed
Funeral Home	1 per 4 seats
Gallery/Museum	1 per 1000 sf GFA
Government Facilities & office Buildings	1 per 300 sf GFA
Government Maintenance Yard	1 per 375 sf GFA
Greenhouses/Nursery	1 per 375 sf GFA
Group Care Facility	.3 per room
Health Care Facility	1 per 250 sf GFA
Health/Fitness Club	1 per 250 sf GFA
Homeless Shelter	1 per 3 residents at maximum capacity
Hospitals	1 per 400 sf GFA
Hotels & Motels	.8 per room plus 1 per 800 sf public mtg and restaurant space

6.13.3.5 Table: Minimum Number Of Parking Spaces Required

USE TYPE	PARKING STANDARD
Junkyard/Outside Storage of Junked or Wrecked Motor Vehicles	1 per employee
Kennels, Boarding	1 per 300 sf GFA
Library	1 per 300 sf GFA
Mail Order Houses	1 per employee plus 3 visitor spaces
Manufacturing Complex	1 per employee plus 3 visitor spaces
Meeting Facility	1 per 6 seats or 1 per 30 sf GFA if no permanent seats
Mobile Home Park	2 spaces per dwelling unit, plus 1 visitor space per 5 units
Motor Vehicle Fuel Station	1 per 300 sf GFA of building
Motor Vehicle Maintenance, & Service	1 per 375 sf GFA
Motor Vehicle Repair	1 per 375 sf GFA
Motor Vehicle Sales & Rentals	1 per 375 sf GFA
Non-residential uses in historic houses in the historic district	NA – use non-residential use standards
Office operations	1 per 250 sf GFA
Offices and professional services	1 per 250 sf GFA
Outlet sales	1 per 300 sf GFA
Park, Athletic or Community	Facility requirements
Park, Cultural or Natural	4 per developed acre plus facility requirements
Park, Neighborhood	none
Park and Ride Facility	none
Parking as Principal Use, Surface or Structure	None
Performance Facility	1 per 6 seats or 1 per 30 sf GFA if no permanent seats
Personal service business	1 per 250 sf GFA
Personal Vehicle Sales	1 per 375 sf GFA
Petroleum Products (storage & distribution)	1 per employee
Postal and Parcel Delivery Services	1 per employee plus 1 per 250 sf of public access area
Processing Facility	1 per employee plus 3 visitor spaces
Public Safety Services	1 per 250 sf GFA
Public Utilities	1 per employee
Recreational Facilities	Broken out by type
Recycling Materials Collections Center	none
Research Facility	1 per employee plus 3 visitor spaces
Restaurant	1 per 75 sf GFA
Retail sales/rentals of goods with outside display/storage of merchandise	1 per 300 sf GFA
Retail sales/rentals of goods within wholly enclosed structure	1 per 300 sf GFA

6.13.3.5 Table: Minimum Number Of Parking Spaces Required

USE TYPE	PARKING STANDARD
Rooming/Board house	1 per guest room plus two for owners residence
School: Art & Music	1 per 4 students
School: Dance, Martial Arts	1 per 4 students
School: Elementary, Middle & Secondary	2.5 per classroom
School: secondary	1 per 4 students
School: Higher Education	1 per 4 students
School: Low Impact	2.5 per classroom
School: Vocational	1 per 200 sf
Skating Rink	5 per 1000 sf GFA
Storage & Warehousing: Inside building, excluding explosives & hazardous wastes	1 space per employee plus 3 visitor spaces
Storage & Warehousing: Outside	1 space per employee plus 3 visitor spaces
Storage & Warehousing: Self	1 per employee plus 2 customer spaces plus 1 space per 20 units for facilities with interior access only
Swimming pool	1 per 100 sf of pool area
Telecommunication Tower, 200' or taller	1 per service employee
Telecommunication Tower, less than 200' tall	1 per service employee
Tennis/Squash/Racquetball	2 spaces per court
Transit Passenger Terminal	1 per employee plus spaces required to satisfy projected peak parking needs
Transmission Lines	None
Vehicle Restoration	1 per 375 sf GFA
Veterinarian/Animal Hospital	1 per 300 sf GFA
Water and sewer pump stations	None
Wholesale sales, indoor	1 per 375 sf GFA
Wholesale sales, with outdoor storage/display	1 per 375 sf GFA

6.13.4 JOINT PARKING FACILITIES

The required parking for multiple, separate and complementary uses located in any zoning districts may be combined in one lot, subject to the following requirements:

- 6.13.4.1** The off-street parking spaces allotted to each use shall be shown on the application for a Zoning Compliance Permit;
- 6.13.4.2** The distance between the primary entrance of the structure housing the use to be served and the farthest allotted parking space for that use shall not exceed one thousand three hundred twenty (1,320) feet.

- 6.13.4.3** Spaces assigned to one use may not be assigned to another use at the same time or any other time, except that upon the presentation of competent evidence demonstrating the adequacy of shared parking facilities, up to one-half of the parking spaces required for uses such as, but not limited to, churches, theatres, and assembly halls, the peak attendance at which is expected to be outside typical business hours (Monday through Friday 8 a.m. to 5 p.m.) may be assigned to another use which will experience peak usage during the day. The Planning Director shall make the determination relative to peak usages.
- 6.13.4.4** Cross easements shall be executed and recorded at the Orange County Register of Deeds to insure the continued availability of the parking facility to the use it serves.

6.13.5 OFF-SITE PARKING

The permit issuing authority may allow off-site parking to account for up to 50% of the required parking for any single use if sufficient operational specificity and rationale are provided during the permit review including some of the following:

- (a) Public transit service is available between the remote parking site and the use(s) it is intended to serve.
- (b) Private shuttle or transit or valet is available between the remote parking site and the use(s) it is intended to serve.
- (c) Private shuttle or transit service is provided for customers of the business, bringing them to and taking them away from the site at their request or scheduled intervals.
- (d) Shared parking with another facility utilizing spaces not needed to meet the second facility's requirements under this Ordinance.
- (e) Leasing of off-site spaces not allocated to another use under this Ordinance.

6.13.6 COMPACT PARKING SPACES

In parking lots with more than twenty-five (25) parking spaces, compact car spaces may constitute up to twenty-five (25) percent of the total number of spaces provided. Compact spaces shall be clearly and permanently designated on the site plan and in parking areas.

6.13.7 OFF-STREET PARKING SETBACK AND LOCATION

- 6.13.7.1** Parking spaces are considered structures for the purpose of determining setback requirements as described in Section 6.3, *General Dimensional Standards*
- 6.13.7.2** All parking required by this ordinance shall be located on the parcel where the use that required the parking is located with the following exceptions:
- (a) Uses that are specifically approved to use on street parking to meet the ordinance requirements or uses occupying buildings in the CC district that existed on the date of this ordinance and have not been enlarged.
 - (b) Uses that have approved joint parking arrangements
 - (c) Uses that have approved off-site parking arrangements

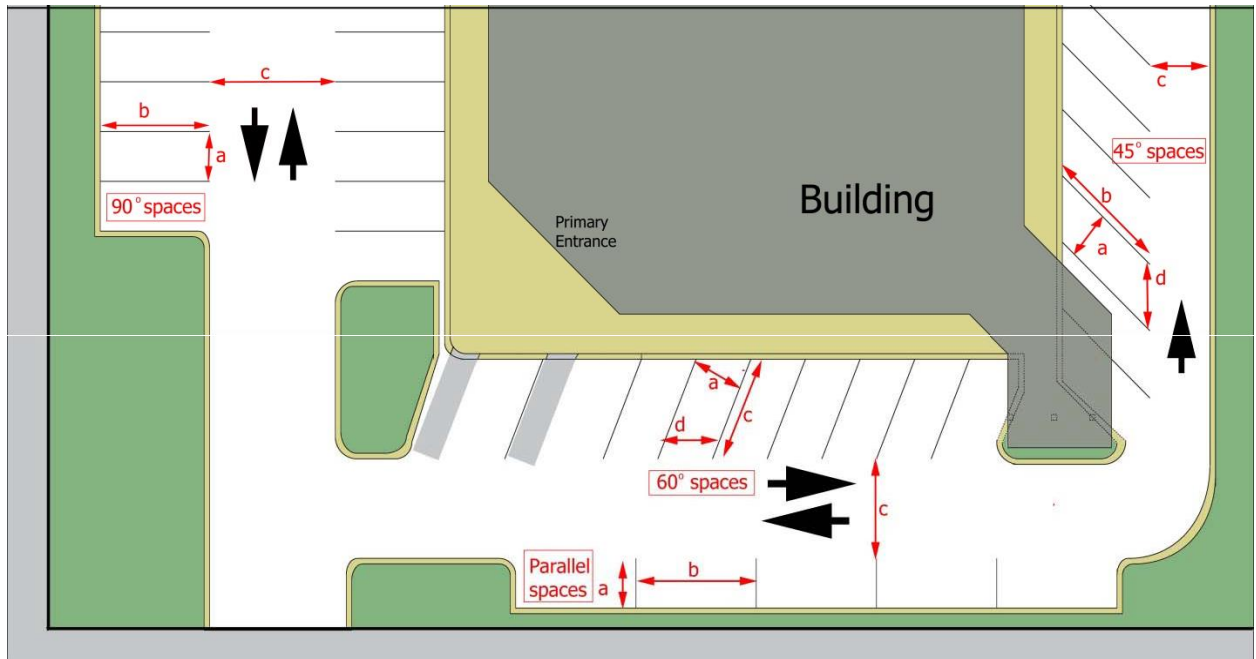
6.13.7.3 Access to Off-Street Parking

- (a) Adequate vehicle accommodation area shall be provided for each parking space in accordance with the standards of the American Society of Highway and Traffic Officials;
- (b) Common driveways with necessary cross-access easements to parking facilities on adjacent properties shall be required where practicable, giving consideration to the nature of the site and the traffic patterns on adjacent streets;
- (c) Access drives or driveways to off-street parking spaces or lots shall conform to the design standards of the North Carolina Department of Transportation or this Ordinance, whichever is stricter;

6.13.8 OFF-STREET PARKING GEOMETRIC REQUIREMENTS

Table 6.13.8 details the minimum geometric requirements for different types of off-street parking spaces, which are shown in Figure 6-8:

6.13.8 Table: Off-Street Standard Parking Geometric Requirements				
Parking Angle	Stall Width	Stall Depth	Aisle Width Two way traffic	Aisle Width One way traffic
x	a	b	c	c
90	9' (8')	18' (16')	25' (22')	25
60	9' (8')	20' (16')	20' (18')	16
45	9' (8')	19' (16')	19' (18')	12
0 (parallel)	9' (8')	23' (20')	20' (20')	12
Dimensions given are for standard parking spaces, compact space dimensions are in parentheses.				
The permit-issuing authority may adjust these requirements to accommodate compact parking, parking of different angles, expected traffic volumes, or Fire Code requirements.				

Figure 6-8: Parking stall measurements

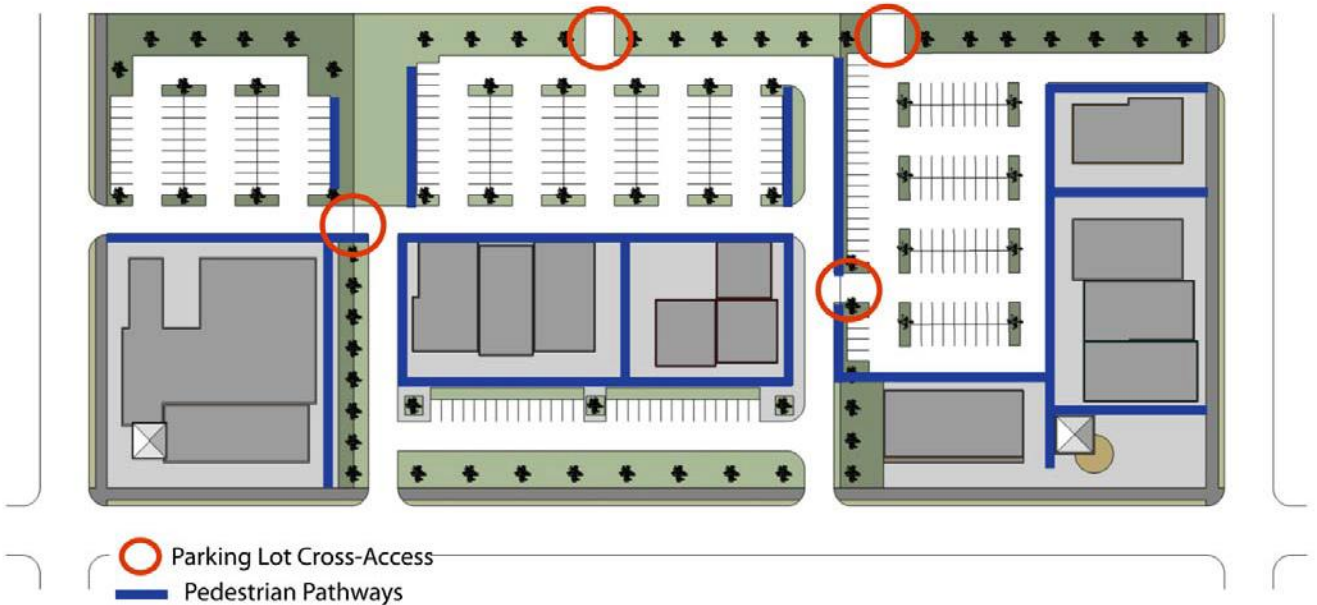
6.13.9 OFF-STREET PARKING DESIGN REQUIREMENTS

- 6.13.9.1** Except as permitted consistent with Section 6.5.10, South Churton non-residential buffer, parking shall be placed at the side or rear of the lot and screened from view consistent with landscaping requirements and screening requirements in this section.
- 6.13.9.2** Visual impact of parking areas shall be reduced by locating the parking areas away from right-of-ways
- 6.13.9.3** Surface parking shall not be located at street corners
- 6.13.9.4** Parking areas shall be broken up into groups of no more than 14 contiguous spaces separated by landscaped areas. Parking areas shall be divided into a series of lots that are interconnected but separated by planted areas.
- 6.13.9.5** Adjacent parking lots shall be connected by cross access easements to provide shared parking areas whenever possible.
- 6.13.9.6** Off street parking shall not be located along any street frontage that also has on-street parking.
- 6.13.9.7** All off-street parking spaces, vehicle accommodation areas, and access areas shall be surfaced with an all-weather paving material, such as asphalt, and maintained in a safe, sanitary, and neat condition. The use of innovative and pervious surfaces for the use of parking is encouraged. Parking is not permitted on landscaped areas.
- 6.13.9.8** Off-street parking spaces shall be designed to prevent interference of parked vehicles with travel lanes, walkways, public property, or other private property by means of walls, curbs, wheel stops, or other appropriate means;

6.13.9.9 All parking areas shall be properly maintained by the owner of the property;

6.13.9.10 If an applicant proposes to construct parking spaces in excess of 125% of the number required by this ordinance, the applicant will need to seek a waiver from the permit issuing authority. The permit issuing authority may consider the use of alternative pavement, reservation of spaces for electric charging or other innovations in considering a waiver request.

Figure 6-9: Off-Street Parking Design Requirements



6.13.9.11 See Section 6.10 for Landscaping (Parking Lot).

6.13.10 OFF-STREET LOADING REQUIREMENTS

6.13.10.1 Industrial and commercial structures shall provide space for off-street loading of vehicles, unless the applicant for such use can demonstrate that such space is not required for the use.

6.13.10.2 The requirements for off-street loading are in addition to the requirements for off-street parking. Space designated for compliance with off-street parking requirements shall not be used to comply with the requirements for off-street loading space and vice versa.

6.13.10.3 An off-street loading space, for the purposes of this section, shall have a minimum width of twelve (12) feet, a minimum length of sixty (60) feet and a vertical clearance of sixteen (16) feet above the finished grade of the space.

6.13.10.4 Each off-street loading space shall be located and arranged so that a semi-trailer truck can use it safely.

6.13.11 TABLE: USE TYPE AND OFF-STREET LOADING SPACES

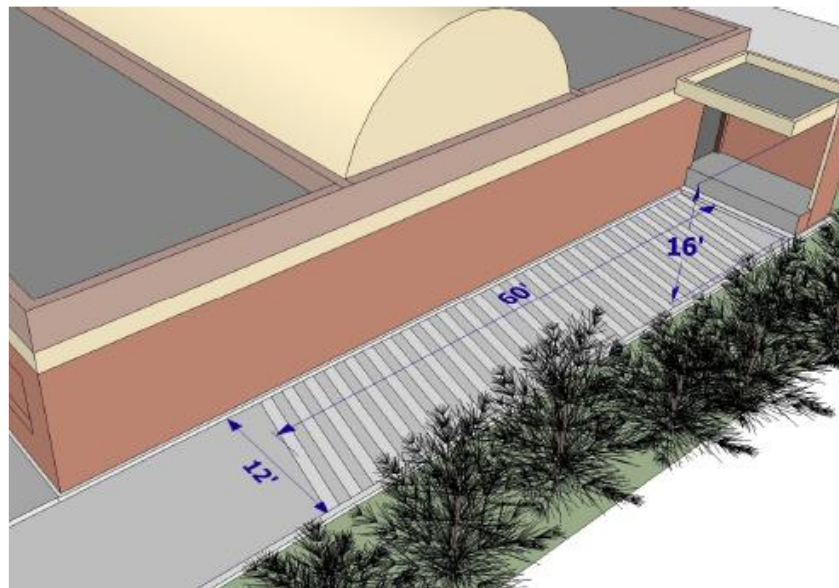
Each new use shall provide the following off-street loading spaces:

USE TYPE	MINIMUM LOADING REQUIREMENTS
Retail Business	One (1) space for each five thousand (5,000) square feet of floor space or major fraction thereof; no more than three (3) spaces are required
Wholesale and Industrial Uses	One (1)

6.13.12 DESIGN REQUIREMENTS

- 6.13.12.1** Delivery areas, loading docks, and service areas shall be located behind the primary building.
- 6.13.12.2** Delivery areas, loading docks, and service areas shall be screened from view so as not to be visible from the street

Figure 6-10: Off-Street Loading Requirements

**6.14 PUBLIC SCHOOL FACILITIES, ADEQUACY****6.14.1 PURPOSE AND INTENT**

The purpose of this ordinance is to ensure that, to the maximum extent possible, approval of new residential development will become effective only when it can reasonably be expected that adequate public school facilities will be available to accommodate such new development.

6.14.2 CERTIFICATE OF ADEQUACY OF PUBLIC SCHOOL FACILITIES

- 6.14.2.1** Subject to the remaining provisions of this section, no approval under this ordinance of a subdivision preliminary plat, minor subdivision final plat, site plan, or conditional or special use permit for a residential development shall become effective unless and until Certificate of Adequacy of Public School Facilities (CAPS) for the project has been issued by the School District.

- 6.14.2.2** A CAPS shall not be required for a general use or conditional use rezoning or for a master land use plan. However, even if a rezoning or master plan is approved, a CAPS will nevertheless be required before any of the permits or approvals identified in subsection (a) of this section shall become effective, and the rezoning of the property or approval of a master plan provides no indication as to whether the CAPS will be issued. The application for rezoning or master plan approval shall contain a statement to this effect.
- 6.14.2.3** A CAPS must be obtained from the School District. The School District will issue or deny a CAPS in accordance with the provisions of the Memorandum of Understanding among Orange County, Hillsborough, and the Orange County School District dated July 14, 2003.
- 6.14.2.4** A CAPS attaches to the land in the same way that development permission attaches to the land. A CAPS may be transferred along with other interests in the property with respect to which such CAPS is issued, but may not be severed or transferred separately.

6.14.3 SERVICE LEVELS

This section describes the service levels regarded as adequate by the parties to the Memorandum of Understanding described in subsection (b) with respect to public school facilities.

- 6.14.3.1** As provided in the Memorandum of Understanding among Orange County, Hillsborough, and the Orange County School District, adequate services levels for public schools shall be deemed to exist with respect to a proposed new residential development if, given the number of school age children projected to reside in that development, and considering all the factors listed in the Memorandum of Understanding, projected school membership for the elementary schools, the middle schools, and the high school(s) within the Orange County School District will not exceed the following percentages of the building capacities of each of the following three school levels:

- | | | |
|-----|-------------------------|------|
| (a) | elementary school level | 105% |
| (b) | middle school level | 107% |
| (c) | high school level | 110% |

For purposes of this ordinance, the terms "building capacity" and "school membership" shall have the same meaning attributed in the Schools Adequate Public Facilities Memorandum of Understanding among the Town of Hillsborough, Orange County and the Orange County Board of Education.

6.14.4 EXPIRATION OF CERTIFICATES OF ADEQUACY OF PUBLIC SCHOOL FACILITIES

A CAPS issued in connection with approval of a subdivision preliminary plat, minor subdivision final plat, site plan, or conditional or special use permit shall expire automatically upon the expiration of such plat, plan, or permit approval.

6.14.5 EXEMPTION FROM CERTIFICATION REQUIREMENT FOR DEVELOPMENT WITH NEGLIGIBLE STUDENT GENERATION RATES

In recognition of the fact that some new development will have a negligible impact on school capacity, a CAPS shall not be required under the following circumstances:

- 6.14.5.1** For residential developments restricted by law and/or covenant for a period of at least thirty years to housing for the elderly and/or adult care living and/or adult special needs;
- 6.14.5.2** For residential developments restricted for a period of at least thirty years to dormitory housing for university students.
- 6.14.5.3** If the use of a development restricted as provided above changes, then before a permit authorizing such change of use becomes effective, a CAPS must be issued just as if the development were being constructed initially.

6.14.6 APPLICABILITY TO PREVIOUSLY APPROVED PROJECTS AND PROJECTS PENDING APPROVAL

- 6.14.6.1** Except as otherwise provided herein, the provisions of this ordinance shall only apply to applications for approval of subdivision preliminary plats, minor subdivision final plats, site plans and conditional or special use permits that are submitted for approval after the effective date of this ordinance.
- 6.14.6.2** The provisions of this ordinance shall not apply to amendments to subdivision preliminary plats, minor subdivision final plats, site plans, or special or conditional use permit approvals issued prior to the effective date of this ordinance so long as the approvals have not expired and the proposed amendments do not increase the number of dwelling units authorized within the development by more than five percent or five dwelling units, whichever is less.
- 6.14.6.3** The Town Board shall issue a special exception to the CAPS requirement to an applicant whose application for approval of a subdivision preliminary plat, minor subdivision final plat, site plan or conditional or special use permit covers property within a planned unit development or master plan project that was approved prior to the effective date of this ordinance, if the Town Board finds, after an evidentiary hearing, that the applicant has (1) applied to the School District for a CAPS and the application has been denied, (2) in good faith made substantial expenditures or incurred substantial binding obligations in reasonable reliance on the previously obtained planned unit development or master plan approval, and (3) would be unreasonably prejudiced if development in accordance with the previously approved development or plan is delayed due to the provisions of this ordinance. In deciding whether these findings can be made, the Town Board shall consider the following, among other relevant factors:
 - (a) Whether the developer has installed streets, utilities, or other facilities or expended substantial sums in the planning and preparation for installation of such facilities which were designed to serve or to be paid for in part by the development of portions of the planned unit development or master

planned project that have not yet been approved for construction;

- (b) Whether the developer has installed streets, utilities, or other facilities or expended substantial sums in the planning and preparation for installation of such facilities that directly benefit other properties outside the development in question or the general public;
- (c) Whether the developer has donated land to the School District for the construction of school facilities or otherwise dedicated land or made improvements deemed to benefit the School District and its public school system;
- (d) Whether the developer has had development approval for a substantial amount of time and has in good faith worked to timely implement the plan in reasonable reliance on the previously obtained approval;
- (e) The duration of the delay that will occur until public school facilities are improved or exist to such an extent that a CAPS can be issued for the project, and the effect of such delay on the development and the developer.

6.14.6.4 The decision of the Town Board involving a special exception application under Section 6.14.6.3 is subject to review by the Orange County Superior Court by proceedings in the nature of certiorari. Any petition for review by the Superior Court shall be filed with the Clerk of Superior Court within 30 days after a written copy of the decision of the Town Board is delivered to the applicant and every other party who has filed a written request for such copy with the Clerk to the Town Board at the time of its hearing on the application for special exception. The written copy of the decision of the Town Board may be delivered either by personal service or by certified mail, return receipt requested.

6.14.6.5 The Mayor or any Board member temporarily acting as Mayor may, in his or her official capacity, administer oaths to witnesses in any hearing before the Town Board concerning a special exception.

6.14.7 APPEAL OF SCHOOL DISTRICT DENIAL OF A CAPS

The applicant for a CAPS which is denied by the School District may, within 30 days of the date of the denial, appeal the denial to the Town Board. Any such appeal shall be heard by the Town Board at an evidentiary hearing before it. At this hearing the School District will present its reasons for the denial of the CAPS and the evidence it relied on in denying the CAPS. The applicant appealing the denial may present its reasons why the CAPS application should have, in its view, been approved and the evidentiary basis it contends supports approval. The Town Board may (1) affirm the decision of the School District, (2) remand to the School District for further proceedings in the event evidence is presented at the hearing before the Town Board not brought before the School District, or (3) issue a CAPS. The Town Board will only issue a CAPS if it finds that the CAPS should have been issued by the School District as prescribed in the Memorandum of Understanding among the School District, Orange County and the Town. A decision of the Town Board affirming the School District may be appealed by the applicant for a CAPS by proceedings in the nature of certiorari and as prescribed for an appeal under Section 6.14.6.4.

6.14.8 INFORMATION REQUIRED FROM APPLICANTS

The applicant for a CAPS shall submit to the School District all information reasonably deemed necessary by the School District to determine whether a CAPS should be issued under the provision of the Memorandum of Understanding between the Town Board, Orange County, and the School District. An applicant for a CAPS special exception or an applicant appealing a CAPS denial by the School District shall submit to the Town Board all information reasonably deemed necessary by the Town Board to determine whether a special exception should be granted as provided in Section 6.14.6.3 or for the hearing of an appeal of a School District denial of a CAPS as provided in Section 6.14.7, *Appeal of School District Denial of a CAPS*. A copy of a request for a CAPS special exception or of an appeal of a School District denial of a CAPS shall be served on the superintendent of the School District. Service may be made by personal delivery or certified mail, return receipt requested.

6.15 RECREATION SITES**6.15.1 PURPOSE AND INTENT**

It is the intent of this section to protect and promote the public health, safety, and general welfare by requiring the dedication of a portion of land for the purpose of providing recreation space and/or equipment in accord with the Town of Hillsborough Parks and Recreation Master Plan.

6.15.2 APPLICABILITY

Every development proposal containing 5 or more residential units, whether attached or detached, shall include dedication of a portion of the land for public recreation to serve the leisure needs of the residents of the development.

If a development is proposed in a location recommended for recreation improvements in the adopted Parks and Recreation Master Plan or adopted small area plan, the development plan shall indicate the extent to which the proposal fulfills the intent of the adopted plan.

6.15.3 CALCULATION OF REQUIRED AREA

The applicant shall provide land for recreation, provide improvements for recreation, provide fees in lieu of land and improvements, or provide a combination of the above according to the following:

- (a) At least one thirty fifth (1/35) of an acre (.029 acres) shall be dedicated for each dwelling unit shown in the plan, or
- (b) Detached dwelling units shall be assigned 12 recreation points per dwelling. Points for each attached dwelling unit based on the number of bedrooms per units shown in the plan shall be required for recreational improvements according to Table 6.15.4; or
- (c) Fees in lieu of dedication of recreational area and improvements may be paid according to Section 6.15.9, *Payments in Lieu of Dedication*, for each dwelling unit shown in the subdivision plan; or

- (d) A combination of the three above methods may be used to satisfy the recreational dedication requirements, provided, however, that the final approval of the applicant's plan shall at all times remain with the permit issuing authority.

6.15.4 TABLE: RECREATION POINTS AND ATTACHED DWELLING UNITS	
Dwelling Units	Minimum Points Required
One bedroom unit	6.0
Two bedroom units	9.5
Three or more bedrooms	12

In the computation of recreational requirements: four hundred (420) points shall be deemed to equal one (1) acre; and, when calculating a combination of the above, the recreational space cannot be utilized more than once (for example, a swimming pool which equals 356 points cannot use its 768 square feet of land in the acreage calculation).

6.15.5 CHARACTERISTICS OF REQUIRED AREA

6.15.5.1 Site Suitability for Active Recreation Areas

- a) Land provided or dedicated for active recreational purposes shall be of a character, slope and location suitable for use as play areas, tennis courts, multi-purpose courts, picnic areas, ball fields and other similar recreation uses.
- b) Active recreation areas shall be located on land that is relatively flat (0 to 7 1/2% slopes), free of wet lands and/or flood plains, free of easements for public utility transmission lines, and otherwise capable of accommodating active recreation uses.
- c) Play equipment suitable for children under twelve shall comprise at least five (5) percent of the total points required.

6.15.5.2 Site Suitability for Passive Recreation Areas

Land provided or dedicated for passive recreation and open space purposes shall be of a character, slope and location suitable for use for walking, jogging, reading and similar quiet activities, and the preservation of natural features and cultural resources such as steep slopes, rock outcrops, native plant life and wildlife cover, nature woodlands and water resources.

6.15.5.3 Location

Land dedicated for recreation purposes shall be located so as to serve the needs of the immediate residents of the subdivision. Recreation areas shall be centrally located so as to provide relatively easy accessibility to all residents of the subdivision; provided, however, recreation areas may be approved in other locations where land more suited for recreation purposes due to shape, level

slopes and/ or dry soil conditions is present.

6.15.5.4 Unity

Land dedicated for recreation purposes shall be a single lot except where it is determined that two (2) or more lots are suited to the needs of a particular subdivision. The Planning Board may recommend, and the Town Board may require, the dedication of a path connecting two or more recreation areas, in addition to the land required in Section 6.15.3, *Calculation of Required Area*.

6.15.6 SITE IMPROVEMENTS

Private recreation facilities either required or provided at the option of the applicant, shall meet the standards for site improvements contained herein. When choosing improvements for a recreational area, the anticipated characteristics and needs of the residents/businesses shall be considered in conjunction with the size of the development, any physical constraints posed by the site, and the availability of other improvements within the same general area as the subdivision. As an example, the existence of a multi-purpose court in an adjacent, existing subdivision and the availability of the facility for use by residents of the proposed subdivision may indicate to the applicant that another facility, such as a tennis court, would be more appropriate. Recreation facilities which are suitable for various age groups include, but are not limited to those shown on the following pages. Trash receptacles shall be provided for all recreational areas regardless of the number and type of other improvements located thereon.

In addition to land provided or dedicated for active recreation purposes, sufficient area shall be provided to meet off-street parking requirements for the proposed improvements as shown in Table 6.13.3.5, *Minimum Number of Parking Spaces Required*.

6.15.7 POINTS SYSTEM

Active recreation areas shall be easily visible from and have direct access to public street(s) and shall be designated as such on preliminary and final plats.

Active recreation areas and facilities shall be provided to such extent that the sum total of recreation points assigned to each recreational area and facility in table 6.15.7.1 equals or exceeds the number of recreation points required in that development in accordance with the provisions of this section.

For purposes of this subsection, a recreation point is a unit of measurement that allows various types of recreational areas and facilities to be compared to one another. The principal criterion upon which recreation points are assigned to various facilities is the cost associated with the development of such facilities. The following table establishes the recreation points assignable to the facilities listed. Points for facilities not included on the table below shall be determined by the permit issuing authority.

Active recreational facilities and areas should be located throughout the development so that they can be reached safely and easily by their anticipated users. Such facilities

and areas must be on land that is suitable for the use intended, have a minimum of twelve hundred (1200) square feet per area, and be sufficiently buffered to minimize the impacts on adjacent residences.

Table 6.15.7.1 – Recreation Points by facility type

Facility	Points Per SF	Minimum requirements
Multipurpose Field/ festival lawn	0.01	less than 5% slope, turf surface, min 20,000 sf
Sports Field (baseball/football/soccer)	0.01	turf surface, perimeter fence, backstops, goals as appropriate
Community garden	0.01	perimeter fence, water source, min 5,000 sf
Dog park	0.01	perimeter fence, water source, min 10,000 sf
Volleyball Court	0.01	
Multipurpose trail - natural surface	0.01	Mulch or Chapel Hill gravel. Minimum 5 foot surface width. Available for public use. Points calculated by linear feet
Multipurpose trail - paved surface	0.02	Asphalt. Minimum 8 foot surface width. Available for public use. Points calculated by linear feet
Swimming Pool Patio	0.02	
Fitness Station	0.02	
Hard Surface Court (tennis/pickleball/basketball)	0.1	perimeter fence, sized for intended sport
Shelter/gazebo/covered space	0.2	
Amphitheater	0.2	available for public use
Water feature/natural pond	0.2	cannot be part of the stormwater management system
Play Equipment	0.3	
Natural Play areas/equipment	0.35	
Swings	0.35	
Swimming Pool	0.4	
Skate Park	0.4	available for public use
Splash Park	0.4	available for public use
Clubhouse	0.5	

6.15.7.2 RECOGNITION OF TOWN PRIORITIES

The town has established recreation facility priorities in response to requests and current lack of facilities. Any development awarded points under this section will not be deemed out of compliance with this provision if the town amends the list or discontinues the double point system. Any development installing priority improvements will receive double the points noted in table 6.15.7.1 for the priority item provided. The Parks and Recreation Board will review the priority facility list annually in January and adopt a revised list.

6.15.8 METHOD OF PROVISION OR DEDICATION

Land dedicated for public recreation area shall be designated on both the preliminary and final plat(s) of the development and must be dedicated to an appropriate unit of

local government. Determination of the appropriate unit of local government shall be made by the permit issuing authority. The Town Board must formally accept any dedication offered or required before the dedication is deemed final. Acceptance of the dedication may be one in trust if deemed appropriate by the Town Board.

Land provided for private recreation purposes must be conveyed to a property owners' association subject to covenants and easements to be approved by the permit issuing authority and which provide for the continued maintenance and control of the recreation area in a manner which assures its continuing use for its intended purpose. The formal declaration of covenants and restrictions shall be recorded in the Register of Deeds Office.

6.15.9 PAYMENTS IN LIEU OF DEDICATION

Any applicant required to dedicate or provide recreation area pursuant to this Ordinance may, with the approval of the permit issuing authority, make a payment in lieu of dedication or make a combination of land dedication and payment. Before approving a payment in lieu of dedication, the permit issuing authority shall find that no recreation sites have been designated on the Master Parks and Recreation Plan for the property in question.

The amount of a payment in lieu of dedication shall equal the number of acres required to be dedicated multiplied by the fair market value of the land to be dedicated. Fair market value shall be determined by dividing the tax appraisal of the property at last re-evaluation by the current year assessment ratio.

Payment in lieu of dedication shall be made at the time of final plat approval or within one year of approval of the construction drawings, whichever occurs first. All monies received by the Town of Hillsborough pursuant to this section shall be used only for the acquisition and/or development within the same park district as shown in the Master Parks and Recreation Plan of land for a public park facility. The Town Board has the authority to sell land dedicated pursuant to these provisions, provided that the proceeds of any such sale shall be used solely for the acquisition and/or development of other recreation or park sites within the same park district.

Developments within the extraterritorial jurisdiction and those with less than twenty (20) dwellings will be encouraged to pursue payment in lieu of dedication if they wish provide public ownership of any required recreational facilities due to the town's inability to maintain facilities outside the city limits or in small installations.

6.16 SCREENING

6.16.1 PURPOSE AND INTENT

It is the general intent of this section to provide for screening of utilities and mechanical equipment that may have adverse impacts on residential and pedestrian areas. Non-residential developments require service areas to accommodate utilities, waste handling, air handling, and supplementary power. This section of the Ordinance provides guidance on reducing any adverse impacts while still maintaining convenience and walkability. Buffers between different zoning districts are addressed in Section 6.5, Buffers.

6.16.2 APPLICABILITY

Where non-residential development is adjacent to residentially zoned or used property or adjacent to areas that encourage pedestrian activity or access, the applicant shall address the potential adverse impacts of service areas to the residential and pedestrian uses.

The permit issuing authority shall consider the potential impacts including, but not limited to, the following on adjacent residents and pedestrian areas:

- (a) Dumpsters and recycling collection areas
- (b) Air handling equipment
- (c) Supplementary power
- (d) Electric Utilities and Transformers
- (e) Phone, Cable and other utility services
- (f) Hot boxes & sprinkler connections
- (g) Grease traps
- (h) Service courts
- (i) Lighting
- (j) Satellite Dishes/ Solar Panels

6.16.3 REQUIREMENTS

The screening requirement will be based on the type of impact to be mitigated.

6.16.3.1 Noise

Solid waste areas, air handling equipment, supplementary power, parking and service courts can have noise impacts at the time of use or the sound generated by the machinery itself. Applicants shall provide noise level documentation for equipment located adjacent to the residential or pedestrian use. The permit issuing authority may require any one, or a combination of fencing, distance, and baffling as needed to minimize noise generated by such facilities. Areas that are serviced between 9 p.m. and 7 a.m. shall be located at least 50 feet from a structure in residential use.

6.16.3.2 Visual

- a) Solid waste areas, utility meters, hot boxes and sprinkler connections, and service courts shall be screened from residences, pedestrian areas, and adjacent streets through landscaping, fences, walls, or grade changes of sufficient height to mitigate the visual impact of the utility being screened when viewed from the adjacent parcel, pedestrian area or street.
- b) Solid waste areas shall be screened by a fence or wall tall enough to screen the solid waste from view. The solid waste storage area shall be enclosed and secured by a gate.
- c) Air handling units, condensers, satellite dishes and other equipment that is placed on the roof shall be screened from view by building elements in order to shield from sight at grade as well as from nearby public rights-of-way

6.16.3.3 Light

Parking areas, service courts, delivery areas or others than include overhead and security lighting shall satisfy the lighting of this Ordinance. Further, local streets and residential properties shall be protected from headlight trespass through the installation of sufficiently tall landscaping or screening.

6.17 SIDEWALKS AND WALKWAYS**6.17.1 PURPOSE AND INTENT**

It is the general intent of this section to provide for public health, safety, and welfare by promoting connectivity and multi-modal travel methods to improve quality of life and air quality by requiring the installation of sidewalks and walkways.

6.17.2 APPLICABILITY

Sidewalks and walkways must be constructed as a part of all new developments. For the purposes of this sub-section, “new development” means a development project subject to any of the following:

- a) Master Plan approval;
- b) Special or Conditional Use Permit, including modifications thereof;
- c) Site Plan review involving a zoning lot that is one acre or greater in area and:
 - a. Proposes initial development on the zoning lot, or
 - b. Proposes significant redevelopment disturbing 50% or more of the zoning lot area, or
 - c. Proposes renovation or redevelopment that exceeds one-third of the existing structure’s replacement cost (new)
- d) Construction of a new principal structure on a zoning lot, including significant renovation of an existing structure or vehicle accommodation area that disturbs 50% or more of the area of the zoning lot or exceeds one-third of the existing structure’s replacement cost (new).

6.17.3 GENERAL PROVISIONS**6.17.3.1 Development Sites**

If a parcel fronts on a street segment designated as a high priority or Orange County priority sidewalk segment in the sidewalk recommendation map of the Community Connectivity Plan, any new development on that parcel shall construct a public sidewalk along the designated frontage. The permit issuing authority may modify this requirement upon presentation by the applicant for development approval of competent evidence demonstrating that strict compliance with this standard is not economically feasible or reasonably practicable due to topography, riparian buffer requirements, or other similar reasons. The permit issuing authority may, as a condition of any waiver or modification of this sidewalk requirement require a partial payment equal to no more than the cost of the sidewalk segment for which the waiver or modification are granted. All payments received shall be deposited into the Town’s sidewalk construction capital fund.

If a parcel fronts on a street segment designated as a low priority sidewalk

segment in the sidewalk recommendation map of the Community Connectivity Plan, any new development on that parcel shall either (1) construct the sidewalk along the designated frontage or (2) at the applicant's option, make a payment to the Town in lieu of constructing a sidewalk, or (3) a combination of (1) and (2). The permit issuing authority shall establish the amount of the payment, which shall not exceed the estimated cost of the construction of the sidewalk or section thereof. All payments received shall be deposited into the Town's sidewalk construction capital fund.

6.17.3.2 New Public Streets

Sidewalks will be provided along both sides of all proposed and existing public streets within development.

Sidewalks will be provided along any existing public road directly accessed by the proposed development as follows:

- (a) The sidewalk will extend the length of the property adjacent to the roadway on the same side as the proposed development.
- (b) The developer will provide any necessary additional right-of-way needed for the sidewalk to either the Town of NCDOT, as appropriate.
- (c) Sidewalks shall provide a direct connection to the primary building entry from the street sidewalk system.
- (d) The provisions of 6.5.11 shall govern if the site is subject to that buffer.

6.17.3.3 Design Requirements

- a) Sidewalks built adjacent to an NCDOT road facility shall be built to meet NCDOT sidewalk standards.
- b) Sidewalks shall be at least five (5) feet wide and constructed of concrete at least five (5) inches thick, or such other material as may be approved by the permit issuing authority.
- c) Sidewalks shall connect via a direct link to the primary building entry.
- d) For non-residential lots with existing sidewalks or for sidewalks constructed as part of a new development, shade trees shall be located in the parcel front yard so as to shade the walkway without damaging it. The shade trees shall be installed 10' behind the sidewalk and be spaced no greater than 40' on center. This requirement shall not be applied to non-residential buildings built within 10' of the ROW or with a front courtyard or other site features that provide similar shading.
- e) For non-residential buildings built within 10' of the right-of-way shade trees shall be installed between the curb and sidewalk in accordance with town planting and right-of-way standards.
- f) Sidewalks and walkways shall be constructed to meet ADA requirements
- g) When a retaining wall of 30 inches or more in height or a steep grade exceeding a 1:1 ratio is located within five feet of a sidewalk or other constructed system designed and placed as to direct public pedestrian traffic, a barrier shall be constructed and maintained between the sidewalk and the grade change.

- h) When the horizontal slope of a sidewalk exceeds the minimum grade allowed by ADA, it shall be treated as a ramp with railing requirements.

6.17.4 MAINTENANCE

All sidewalks shall be adequately maintained and kept in a safe and neat manner.

6.18 SIGNAGE

6.18.1 INTENT

It is the general intent of this section to help protect and preserve the historic and aesthetic character of Hillsborough while balancing with those interests the need of businesses, government and the traveling public to safely and accurately identify and read information on permitted signs. Toward that end, the Town adopts these regulations regarding the number, area, location and other characteristics of signs.

6.18.2 SIGNS SUBJECT TO CONTROL

All signs visible from vehicular rights-of-way, both new and existing, shall be erected, maintained, and operated in accordance with this Ordinance and other relevant controls unless specifically exempted. The definition of “sign” also includes those messages inside a building specifically oriented to persons outside the building. The provisions of this section do not apply to window displays of merchandise but do apply to signs mounted in windows.

6.18.3 ZONING COMPLIANCE PERMIT REQUIRED

Before any sign, except those specifically exempted from such a requirement, shall be erected or structurally altered, a Zoning Compliance Permit must be obtained.

In the case of a multi-tenant development, the Zoning Compliance Permit shall be issued in the name of the owner of the multi-tenant development or his agent rather than in the name of any individual tenant thereof, and it shall be the sole responsibility of such owner or agent to allocate among the tenants the permissible maximum sign surface area established by this Ordinance. Upon application by the owner of a multi-tenant development, the Planning Director may issue a master sign permit that allocates permissible maximum sign surface area among the various buildings, businesses or tenancies in the development according to a formula established and furnished by the owner, and thereafter sign permits shall be issued to individual tenants only in accordance with the allocation formula on record with the Planning Director. No sign permit shall be issued for any sign which conflicts with the allocation formula on record, and no new freestanding sign may be erected except in accordance with the then existing sign regulations established by this Ordinance, and with the allocation formula on record.

6.18.4 PERMANENT SIGNS NOT SUBJECT TO PERMIT REQUIREMENTS

The following permanent signs are allowed and are not subject to the permit requirements of this Ordinance, but are subject to all other applicable provisions of this Ordinance, including Historic District requirements for Certificates of Appropriateness as

described in Section 3.12, *Certificate of Appropriateness* of this Ordinance when located in the Historic District.

- 6.18.4.1** Non-illuminated signs not exceeding two (2) per lot and six (6) square feet each in area, bearing only property identification numbers and names, post office box numbers, and names of occupants of the premises.
- 6.18.4.2** Signs two (2) square feet in area posted on private property relating to private parking, warning the public against trespass or danger from animals.
- 6.18.4.3** Flags or insignia of any governmental or non-profit organization when not displayed in connection with commercial activity or promotion. One flag (each) of the United States and of the State of North Carolina no larger than 100 square feet may be displayed in connection with a commercial activity without being subject to the permit requirements of this section.
- 6.18.4.4** Legal notices, identification and informational signs installed by the Town of Hillsborough
- 6.18.4.5** Local traffic directional signs erected in the travel right of way by or on behalf of a governmental entity provided such signs are consistent with the Manual of Uniform Transportation Control Devices or Town's official wayfinding plan.
- 6.18.4.6** Memorial signs or tablets, and names and construction dates of buildings when cut into any masonry surface or when placed as a cast iron (or similar) plaque affixed to the building structure.
- 6.18.4.7** Signs not exceeding four (4) square feet and bearing no advertising matter directing and guiding traffic on multi-family or non-residential property.
- 6.18.4.8** At each entrance to a residential, multi-family, or non-residential development or recognized neighborhood, there may be not more than two (2) signs identifying such development and/or the tenants within. A single side of any such sign may not exceed sixteen (16) square feet, nor may the total surface area of all such signs exceed thirty- two (32) square feet. Such signs must be made of natural materials.
- 6.18.4.9** In addition to the signs allowed in Section 6.18.4.1.h, the owner, property manager, home owners association or residents association of a residential or multi-family development may install a community event bulletin board at each entrance to the development. A community event bulletin board shall not be located in the public right of way, nor shall it be located in such a way as to interfere with lines of sight for vehicular traffic on, entering or exiting the public right of way. Each sign shall meet the following criteria: one unlighted, single-sided sign per entrance, 3' X 4' maximum dimensions, and 6' maximum installation height. The sign face (i.e., the single side of the sign on which information may be posted) shall be oriented toward traffic exiting the development, so that the sign face is not visible from the public right of way outside the subdivision or multi-family development it serves. Postings on the bulletin board shall be maintained in a neat and orderly condition and monitored by the home owner's association or property manager.

6.18.4.10 Notwithstanding any other regulation to the contrary in this section 6.18, the name and/or logo of the Town of Hillsborough may be displayed on the water storage area (or container portion) of any Town-owned water tank, PROVIDED that no single display area may exceed the lesser of (a) 500 square feet or (b) the area calculated by multiplying (i) the height of the storage container portion of the tank by (ii) the diameter (for round) or width (for multi-lateral) of the storage container portion of the tank. No more than three (3) display areas may be placed on any tank, and all such display areas shall be placed a uniform distance from each other display area on the tank. The display area shall be painted or otherwise adhered flat against the exterior water tank surface, and may not be illuminated in any way.

6.18.5 TEMPORARY SIGNS NOT SUBJECT TO PERMIT REQUIREMENTS

No temporary sign may be affixed, attached, or painted upon any utility pole, or upon any tree, rock, or other natural object. All temporary signs referring to commercial operations must include the name of the business entity sponsoring the sign and must be professionally printed. The following temporary signs are not subject to the permit requirements of this Ordinance but are otherwise subject to the requirements of this Ordinance except as specifically indicated herein:

6.18.5.1 Temporary real estate signs on lots of less than one (1) acre, a single sign on each street front. The sign shall not exceed four (4) square feet in area and may contain the message that the property is for sale, lease, or rent and the name, address, and phone number of the property owner or agent. For lots of one (1) acre or more acres in area, a sign not exceeding thirty-two (32) square feet in area may be displayed. Such signs must be located on the property but are not subject to the setback requirements.

6.18.5.2 Temporary real estate signs advertising an existing single family dwelling for sale or rent may use up to two off site “pointer” signs not to exceed four (4) square feet in area and only displaying “for sale,” “for rent,” and either “by owner,” or the logo of the agent. This type of sign is exempted from the provision requiring the business entity name. Such signs must be located on the property but are not subject to the setback requirements.

6.18.5.3 Construction site identification signs identifying the project, the architect, engineer, contractor, funding sources and/or other individuals or firms involved with the construction, the intended use or name of the building, and the expected completion date. Not more than one sign may be erected per site. The sign may not exceed four (4) square feet in area for single family or duplex construction, or thirty-two (32) square feet for multi-family or non-residential construction. The sign may not be erected prior to issuance of a Building Permit, and shall be removed within seven (7) days after of issuance of a Certificate of Occupancy for construction projects for which a Certificate of Occupancy will be issued or otherwise within seven (7) days of completion of the work. This section also applies to signs identifying renovation and/or maintenance work on an existing, developed site.

- 6.18.5.4** Yard or garage sale signs announcing yard or garage sales, provided such signs do not exceed one (1) sign per lot and four (4) square feet in area per display surface, and are removed within seven (7) days of erection.
- 6.18.5.5** Temporary signs or banners announcing grand openings of new businesses only, which may be displayed for no more than 30 consecutive days. There shall be no more than one sign or banner for each business, such sign or banner shall not exceed 32 square feet in area, and shall be affixed to the structure the business is located within or at the driveway access for the building.
- 6.18.5.6** Temporary political signs advertising candidates or issues, provided such signs do not exceed nine (9) square feet in area per display surface, are mounted on stakes, do not exceed 3 feet in total height, are not erected more than 45 days before the date designated as election day, and are removed within seven (7) days after the election (in cases of run-off election, the political signs of the run-off candidates may remain until seven (7) days after the run-off election). Political signs may be located within the public right-of-way and setbacks provided that they do not intrude on the sight preservation triangle.
- 6.18.5.7** Banners or flags that are decorative or seasonal in nature or that are displayed in connection with the observance of holidays not to exceed three (3) per lot located in any zoning district. Banners or flags advertising special sale events of for-profit organizations are not covered by this section.
- 6.18.5.8** Directional or “pointer” signs for events. Any event may have up to off-site 2 signs, not exceeding 2 square feet each. Events do not have to meet the definition of “public event” in this ordinance to use this sign. The signs may be displayed for no more than one 24 hour period only that coincides with the event.

6.18.6 TEMPORARY SIGNS SUBJECT TO PERMIT REQUIREMENTS

The following temporary signs are subject to the permit requirements of this Ordinance and are subject to Historic District requirements for Certificates of Appropriateness as described in Section 3.12, *Certificate of Appropriateness* when located in the Historic District.

- 6.18.6.1 Sandwich board** signs may be displayed by businesses to advertise information beyond identifying the name and location of the business upon issuance of a Zoning Compliance Permit and approval by the Historic District Commission if the business is located in the Historic District, provided that the sign:
- a) Has a maximum area of six (6) square feet per side;
 - b) Does not exceed four (4) feet in height;
 - c) Is located on a public sidewalk or walkway outside the clear pedestrian path as defined by the town code;
 - d) Is limited to a maximum of one per parcel, provided that if a single business establishment occupies more than one parcel or is located on a corner lot, it may have only one sandwich board sign;
 - e) Is displayed only during the open hours of the business; and

- f) Is made of wood or metal.
- g) Businesses which have permitted outdoor seating in the public right of way may display a single sided sign attached to the barrier installed to separate the outdoor seating from the clear pedestrian path. This sign must meet all of the requirements in subsections a-f above and receive the same permits as a sandwich board.

6.18.6.2 Announcements of public events as defined by this ordinance taking place within the Town or its extraterritorial jurisdiction may be permitted subject to the following standards. If an event that otherwise meets the definition occurs monthly or more frequently, the event does not qualify for the signage allowed in this section.

- (a) The event is sponsored by a non-profit, unit of state or local government, or formal association of merchants. For the purposes of this section, the entity that wishes to qualify may be requested to provide documentation of their status as an association, organization by the Planning Director.
- (b) Signs may be erected no more than 14 days prior to the event and shall be removed no later than 48 hours after the event has concluded. For any event lasting more than 2 days, signs may not be displayed for more than 17 days.
- (c) No event shall display more than 100 square feet of signage, including all off-site and on site signage allowed under this ordinance.
- (d) No event shall display more than 6 signs, as detailed below. The Planning Director will issue a Zoning Compliance Permit detailing the approved sign number, size, and locations.
 - i. One sign may be located on the lot hosting the event for the same display period. This sign may be a banner if it is securely fastened and adequately vented to not pose a threat to traffic. This sign shall be no larger than 32 square feet.
 - ii. One sign may be a banner posted at the “Welcome to Hillsborough” sign as detailed below. No event is required to have a banner. If an event decides to not use a banner, the total number of signs permitted is reduced to five.
 - iii. Four off-site signs, displayed in different locations, may be located in the public right of way, but not in a driveway or intersection sight triangle. These signs must be of rigid construction (not banners) and a single side may not exceed 8 square feet. The sign locations must be included in the permit application materials.

6.18.6.3 Banners advertising public events, as defined by this ordinance, may only be installed at the “Welcome to Hillsborough” sign on South Churton Street. The Planning Director shall issue a Zoning Compliance Permit for each banner on a first come first served basis. The Planning Director will resolve any overlapping requests for banner displays. Banners that are part of a public event sign package authorized in

Section 6.18.6.3 shall be displayed for a time period matching the other event signage. Otherwise the display period shall not exceed 14 days. Banners shall conform to written standards and safety guidelines as established by the Planning Director.

6.18.7 PROHIBITED SIGNS & PROHIBITED CHARACTERISTICS

- 6.18.7.1** Temporary signs, both new and existing, other than those expressly allowed in this Ordinance, are prohibited.
- 6.18.7.2** Devices consisting of flags other than those exempted by Section 6.18.4.3, banners, streamers, pennants, windblown propellers, balloons, strung light bulbs, flashing lights, rotating lights, strobe lights, fluorescent lights, rotating or other moving or apparently moving installations, are prohibited.
- 6.18.7.3** Vehicles, persons, and other creatures, devices, equipment or materials decorated in such a way as to promote a business or product and located or placed so as to be visible from the public right-of-way are prohibited.
- 6.18.7.4** Freestanding signs shall be securely fastened to the ground or to some other substantial supportive structure to minimize the danger that either the sign or the supportive structure may be moved by the wind or other forces of nature and cause injury to persons or property.
- 6.18.7.5** All non-exempt signs shall comply with the construction requirements of the North Carolina State Building Code. Trailer mounted signs do not meet these requirements.
- 6.18.7.6** Off-premise signage, both new and existing, other than those expressly allowed in this Ordinance, are prohibited.
- 6.18.7.7** Changeable message components, including but not limited to, marquees, push-up/drop-down tracks, sign lettering rails, and rotating LED or video screens are prohibited on all permanent signs. This does not apply to temporary signs, including sandwich boards.

6.18.8 TRAFFIC SAFETY PRECAUTIONS

Notwithstanding any other provisions in this Ordinance, the following practices in relation to signs are prohibited in order to preserve the safety of pedestrian and vehicular movement:

- 6.18.8.1** No part of any permanent sign may intrude into the sight preservation triangle.
- 6.18.8.2** No privately owned sign shall use words such as "stop", "slow", caution", "danger", or similar admonitions in a format or manner which could be confused with traffic directional signs erected by government agencies.
- 6.18.8.3** No sign shall be erected which, by its location, color, nature, or message, (a) might be confused with or obstruct the view of traffic signals or signs or (b) might be confused with the warning lights of an emergency or public safety vehicle.

6.18.9 RESTRICTIONS ON ILLUMINATION

Unless otherwise prohibited by this chapter, signs may be illuminated only in accordance with this section. All illuminated signs allowed by this Ordinance must also comply with duly adopted regulations regarding light emissions as described in *Section 6.11, Lighting*. Notwithstanding the foregoing, internally illuminated signs are prohibited in the Historic District.

- 6.18.9.1** Directional lighting fixtures used for sign lighting shall be top mounted so lighting is aimed down. Ground mounted signs with a height of five (5) feet or less may be ground lit, provided that the lights are shielded so as to illuminate the sign only, and the light shall not exceed 10 foot candles at the sign surface.
- 6.18.9.2** No illuminated signs are allowed in any residential zoning district, except signs at the entrance to a residential subdivision, neighborhood or multi-family development allowed by *Section 6.18.4.1h* above may be illuminated.
- 6.18.9.3** Freestanding signs and window signs may not be illuminated when the business is closed. Those signs advertising multiple businesses may not be illuminated when all the businesses advertised are closed.
- 6.18.9.4** Lighting directed toward a sign shall be shielded so that it illuminates on the face of the sign and does not shine directly into a public right-of-way or residential premises.
- 6.18.9.5** Subject to Section 6.18.9.7 illuminated tubing or strings of lights that outline property lines, outdoor sales areas, roof lines, or similar areas in an attempt to draw attention to a structure or area from a vehicular right of way are prohibited. This section will be enforced in concert with 6.11.6.9 so the intent of both sections is met.
- 6.18.9.6** Subject to Section 6.18.9.7 no sign may contain or be illuminated by flashing or intermittent lights or lights of changing degrees of intensity, except signs indicating the time, date, or weather conditions.
- 6.18.9.7** Sections 6.18.9.5 and 6.18.9.6 do not apply to temporary signs erected in connection with observance of holidays.
- 6.18.9.8** Within the historic overlay district, illuminated tubing signs shall not be permitted. For purposes of this subsection, the term “illuminated tubing sign” includes all signs in which illuminated tubing constitutes or forms all or part of the message of the sign, as well as signs in which the message area of the sign is outlined, underlined, or otherwise highlighted by illuminated tubing.

6.18.10 BILLBOARDS

Billboards within one hundred (100) feet of the right-of-way along all roads are prohibited, with the exception of existing billboards as of February 17, 1986. These pre-existing billboards shall be subject to the following restrictions:

- 6.18.10.1** They shall not be enlarged or expanded,
- 6.18.10.2** A signed statement with the name and address of the owner and current lease for each sign shall be kept on file with the Planning Director,

6.18.10.3 They shall be subject to yearly inspections,

6.18.10.4 They shall conform to the requirements set forth in N.C. Gen. Stat. § 136-126, et seq.

6.18.11 COMPUTATION OF SIGN AREA

For the purpose of determining the number of signs permitted, a sign shall be considered to be a single display device containing elements organized, related, and composed to form a unit.

Without limiting the generality of the above, a multi-sided sign shall be regarded as one sign.

6.18.11.1 The surface area of a sign shall be computed by including the entire area within a single, continuous, rectilinear perimeter of not more than eight (8) straight lines, or a circle or an ellipse, enclosing the extreme limits of the writing, representation, emblem or other display, together with any material or color forming an integral part of the background of the display or used to differentiate the sign from the backdrop or structure against which it is placed, but not including any supporting framework or bracing that is clearly incidental to the display itself.

6.18.11.2 If the sign consists of more than one section or module, all of the area, including that between sections or modules, shall be included in the computation of the sign area.

6.18.11.3 With respect to three dimensional or multi-sided signs, the surface area shall be computed by including the area of all sides designed either to attract attention or communicate information.

6.18.11.4 Generally, parcels and businesses are permitted to have both freestanding and wall mounted signs to the extent to which signs can be erected and maintained to be in full compliance with this ordinance. The area of these signs is calculated independently.

6.18.12 TOTAL SIGN SURFACE AREA FOR WALL MOUNTED SIGNS

6.18.12.1 Unless otherwise provided in this section, the total sign surface area devoted to all signs on any lot shall not exceed the limitations set forth in this section, and all signs except temporary signs shall be included in this calculation. Signs, posters, banners and/or other advertising material placed in or on windows oriented toward the public outside the premises shall be counted in calculating the permitted wall sign area under this Ordinance.

6.18.12.2 For the purposes of managing wall mounted signs, the word “façade” shall include all planes facing the same direction regardless of structural offsets and the word “building” shall be determined by property boundaries unless information is provided about interior fire walls dividing a structure into multiple components.

6.18.12.3 Unless otherwise limited by the provisions of this section, the wall sign surface area permitted on any building façade, shall be determined as follows:
(a) 0.5 square feet of wall sign surface area per linear foot of building façade, or

- (b) thirty-two (32) square feet of wall sign surface area per building façade, whichever is greater.

6.18.12.4 In the CC district, wall signs are only permitted on facades providing primary access to businesses for customers. The maximum aggregate wall sign surface area for each façade providing primary access to businesses for their customers shall be 32 square feet, regardless of the façade area or length. This limit shall apply to all wall mounted signs, including exterior, interior, awning, and hanging types.

6.18.12.5 When a building has wall area that is not parallel or perpendicular to the adjoining street, the allowable sign area for that wall section shall be calculated by measuring the entire façade oriented along the same angle (consistent with Section 6.18.12.2) and apply the calculation in Section 6.18.12.3a. There is no minimum allowance for angled wall sections.

6.18.12.6 When a building has visibility and/or access from both a public right of way and a parking area, each business may have a wall mounted sign on both facades. The “front” façade shall be the one oriented toward the public right of way and the “rear” façade shall be the opposite façade. The sign area allowed on the “front” façade shall be calculated as detailed in Section 6.18.12.3. The sign area allowed on the “rear” façade shall be the lesser of the area allowed when calculated under Section 6.18.12.3 or 75% of the area of the sign on the front façade.

6.18.12.7 Hanging signs are permitted and considered wall signs under this ordinance for determining size, location, and illumination. The calculation for allowable sign area shall be for a single side of a hanging sign, not divided in half. A single side of a hanging sign shall be compared to the building façade area for determining compliance with the requirement in the CC district in Section 6.18.12.4.

6.18.12.8 When a building contains a sign band, such a building may only use a flush mounted wall sign and it must be located and centered within the sign band area. Hanging signs shall not be used on a façade with a sign band.

6.18.13 FREESTANDING SIGN SURFACE AREA

6.18.13.1 For purposes of this section, a side of a freestanding sign is any plane or flat surface included in the calculation of the total sign surface area as provided in Section 6.18.11, *Computation of Sign Area*. For example, wall signs typically have one side. Freestanding signs typically have two sides (back to back).

6.18.13.2 A single side of a freestanding sign may not exceed: twenty (20) square feet in surface area for lots zoned Central Commercial or for lots with fifty (50) feet or less of frontage on the street toward which the sign is primarily oriented; thirty-two (32) square feet on lots with more than fifty but less than 130 feet of frontage; fifty (50) square feet on lots with 130 feet or more of frontage. For the purpose of calculating the amount of freestanding sign surface area allowed by this section, the street frontage must be continuous.

6.18.14 NUMBER OF FREESTANDING SIGNS

- 6.18.14.1** No parcel may have more than one (1) freestanding sign oriented toward a street for each street along which the development has frontage. If a single use parcel has frontage along the same street in non-continuous sections separated by more than 500 linear feet of street frontage, one freestanding sign may be allowed on each section of frontage for which there is vehicular access based on the length of that continuous section, provided, however, that the sign surface area for the development may not exceed the area calculated pursuant to Section 6.18.13 for single tenant parcels and Section 6.18.18 for multi-tenant developments.
- 6.18.14.2** If a lot is located at the intersection of two (2) streets and a freestanding sign is placed on that lot so that it is oriented toward both streets, the allowable sign area shall be based on the frontage width of the street where the front door is located or, if the door faces the intersection, the frontage width of the street used as the street address for the property.

6.18.15 LOCATION AND HEIGHT REQUIREMENTS

- 6.18.15.1** A freestanding sign shall observe a setback of 10 feet from any property line unless a lesser or greater standard is otherwise specified in this ordinance or allowed by the permit issuing authority.
- 6.18.15.2** In the case of an existing building being used for non-residential purposes in a corridor where the street right-of-way is 100 feet or greater and the right-of-way is only improved to a two lane section, the non-residential use may install any freestanding sign that otherwise meets this ordinance without a right-of-way setback. This provision is only available until there are funded right-of-way improvements that widen the street section to four or more lanes adjacent to the lot containing the non- residential use that will begin within 2 years of any requested sign permit.
- 6.18.15.3** No sign may extend above any parapet or be placed on any roof surface. This subsection shall not apply to displays, including lighting, erected in connection with the observance of holidays on the roofs of residential structures.
- 6.18.15.4** No part of a freestanding sign may exceed a height of seven (7) feet, measured from adjacent ground level.
- 6.18.15.5** Except within the Historic District and CC, freestanding signs shall be ground mounted or monument type signs with the support located under the sign.
- 6.18.15.6** Within the Historic District and CC, freestanding signs may be supported by two posts or poles, one on each end of the sign, or hang from a ground installed bracket. Such signs must be wholly located on the parcel and not encroach in or over the public right of way. Hanging signs attached to a building are treated as wall mounted signs.
- 6.18.15.7** No sign or supporting structure may be located within or over any public right-of-way except that, within the Historic District and CC, signs and supporting

structures may be located within or over the public right of way so long as:

- (a) No portion of any sign or supporting structure is located within or over the traveled or paved portion of any street.
- (b) Any sign or supporting structure that is attached to the building façade and extends twelve inches or less over a public sidewalk must be mounted so the entire sign is no less than twenty-seven inches and no more than eight feet in height measured from the public sidewalk.
- (c) Any sign or supporting structure that is attached to the building façade and extends more than twelve (12) inches over a public sidewalk is mounted at a height providing at least eight (8) feet of clearance from the sidewalk.

6.18.16 NONCONFORMING SIGNS

6.18.16.1 Nonconforming signs, because of their location, design, height and other features, detract from the quality of life and sense of place Hillsborough seeks to achieve and maintain. Therefore, it is the intent of this Ordinance that all nonconforming signs will eventually be brought into conformity with its provisions, and that nonconforming signs will ultimately be phased out of existence. A freestanding sign in the Central Commercial district may observe a zero setback from the right of way edge along the parcel front, consistent with the zoning district front setback.

6.18.16.2 No person may engage in any activity that causes an increase in the extent of non- conformity of a nonconforming sign. Without limiting the generality of the foregoing, no nonconforming sign may be enlarged or altered, nor may any illumination be added to any nonconforming sign.

6.18.16.3 A nonconforming sign structure may not be moved, replaced, or otherwise changed except to bring the sign into complete conformity with this Ordinance. The message contained on the sign may be changed provided that no change is made to the sign structure, and the sign area and dimensions are not changed.

6.18.16.4 If a nonconforming sign is damaged to an extent equal to or greater than 50% of the sign replacement cost (new) or destroyed, it may not thereafter be repaired, reconstructed, or replaced except in conformity with all the provisions of this Ordinance, and the remnants of the former sign structure shall be cleared from the land.

6.18.16.5 If the owner or occupant of premises with of a nonconforming sign discontinues operations for a period of 90 consecutive days, then the owner shall remove the nonconforming sign and the sign structure shall be cleared from the land.

6.18.17 REMOVAL OF NONCONFORMING SIGNS

6.18.17.1 Any permanent sign that was in compliance with this section before amendments in 2008 or later made it nonconforming may continue to exist for a period not to exceed six (6) years from the date which the property owner is notified in writing by the Planning Director of the nonconformity.

6.18.17.2 Any permanent sign that was nonconforming with this section prior to amendments made in 2008 may continue to exist for a period not to exceed

three (3) years from the date which the property owner is notified in writing by the Planning Director of the nonconformity.

6.18.17.3 Any non-exempt temporary sign on private property must be removed within thirty (30) days of the receipt by the property owner of the written notice from the Planning Director detailing the nonconformity.

6.18.17.4 Any temporary sign, either exempt or nonconforming, located within the public right-of-way may be removed by town staff if such sign is determined to be in violation of this Ordinance. Persons or businesses who repeat violations of this provision twice within any thirty (30) day period may be subject to escalating fines as described in Section 8, *Enforcement*.

6.18.18 SIGNAGE FOR MULTI-TENANT DEVELOPMENTS

6.18.18.1 Freestanding signs may be allowed at each entrance drive to a multi-tenant development provided the driveways are separated by 300 feet or more.

6.18.18.2 The size of the freestanding sign allowed at each driveway access shall be determined by the frontage the development has on the street toward which the sign is oriented. A sign of that size is allowed at each driveway. For example, a multi-tenant development has 400 feet of frontage on a street and 2 driveway accesses. A freestanding sign may be installed at each driveway access that is 50 square feet in size.

6.18.18.3 If a multi-tenant development has more than 500 feet of access on any street, and the driveway accesses are separated by 300 feet or more, the freestanding sign at each driveway may be 100 square feet.

6.18.18.4 Upon application for a multi-tenant development signs, the owner shall submit a sign allocation plan that indicates how square footage will be shared among tenants. Different tenant may be advertised on each sign. No tenant listing can be in print smaller than 6 inches tall. The sign area may be increased by 10% if the sign includes only the development name and three individual tenants.

6.18.18.5 A multi-tenant development sign must observe a 10 foot setback from the public road and internal driveways. The tallest part of a freestanding multi-tenant development sign shall not exceed 7 feet when observing the 10 foot setback. Sign height may increase to 12 feet if one additional foot of setback from the public street is observed for each additional foot in height above seven feet.

6.18.18.6 Outparcels within a multi-tenant development (lots owned by entities other than the multi-tenant development) may install freestanding signs along the public road or private access drive to which they have driveway access. For the purposes of determining sign specifications, a private access drive shall be treated as a public road for determining setback, height, and size of sign. A freestanding sign may only be installed oriented toward a street or access drive that the outparcel has driveway access to.

6.18.19 INTERNAL WAYFINDING

Multi-tenant developments with 2 or more access points or 3 or more buildings shall develop and install an internal wayfinding sign program with components for both

drivers and pedestrians. Such signage may also be developed and installed for non-residential developments with 2 or more access point or 3 or more buildings. A unified sign plan must be submitted and approved before the signs are installed, showing that the signs comply with location, lighting, construction, and height limitations of this section. Individual wayfinding signs do not count toward development or tenant signage and will be permitted on a single Zoning Compliance Permit. Internal wayfinding signage must be at least 50 feet from the right of way of the street providing site access and must be oriented toward on-site traffic flow.

6.19 Reserved for Future Codification

6.20 STORMWATER MANAGEMENT

6.20.1 PURPOSE AND INTENT

6.20.1.1 The Town of Hillsborough's planning jurisdiction is located wholly within the Upper Neuse River Basin and the Falls Lake watershed; both nutrient sensitive watersheds. The regulations contained in this subsection are adopted in order to:

- (a) protect the water quality of streams within the watershed;
- (b) comply with the NPDES System Phase II stormwater requirements; and
- (c) comply with the Town's NPDES Phase II Discharge Permit.

6.20.1.2 The regulations are designed to accomplish these goals through the reduction and control of stormwater runoff and by addressing nutrient reductions for both new and existing development. The provisions of this Subsection became effective on October 1, 2007, and are intended to ensure the Town's compliance with their NPDES Phase II Discharge Permit; Session Law 2006-246 and the Falls Nutrient Strategy (15A NCAC 02b.0275, .0277, .0278 and .0282).

6.20.2 APPLICABILITY

The following activities shall be subject to the requirement of this subsection:

6.20.2.1 New and re-development projects creating new impervious surface areas of 10,000 square feet or more in area.

6.20.2.2 New and re-development projects increasing existing impervious surface areas by 10,000 square feet or more in area.

6.20.2.3 Any activity disturbing 10,000 square feet or more of land in order to establish, expand, or modify a residential, commercial or industrial development (including the re- subdivision of land) involving the construction of streets and other impervious features.

6.20.2.4 Any activity disturbing 10,000 square feet or more of land in order to establish, expand, or modify a multi-family residential, commercial, industrial, or institutional development or facility.

6.20.2.5 Any development activity cumulatively disturbing 21,780 square feet (1/2 acre) or more of land in order to establish, expand, or modify a single- or two-family dwelling and their customary accessory structures on an individual lot and not proposed as part of a larger common plan of development or sale.

6.20.2.6 Any development activity cumulatively disturbing 21,780 square feet (1/2 acre) or more of land in order to establish, expand, or modify a recreational development on an individual lot and not proposed as part of a larger common plan of development or sale.

6.20.2.7 The requirements of this subsection do not apply to any work that does not add to, increase, or expand existing impervious surfaces. An example would be the paving of an existing gravel parking lot with asphalt provided the area of the parking lot is not expanded in any way.

6.20.3 DEVELOPMENT STANDARDS

6.20.3.1 Low-Density Projects

Low-density projects shall implement stormwater control measures that comply with all of the following standards:

- (a) Stormwater runoff from the development site shall be transported from the development site by vegetated conveyances to the maximum extent practicable.
- (b) Nutrient load contributions leaving the site must meet the most current loading rates adopted by NCDWQ requirements of *Section 6.20.4, Nutrient Load Calculation*.
- (c) At a minimum, the development shall not result in a net increase in peak flow leaving the site from pre-development conditions for the one-year, 24-hour storm event.
- (d) All impervious surface areas shall meet the riparian buffer requirements found in *Section 6.20.16, Riparian buffers*.
- (e) The approval of the stormwater permit shall require an enforceable restriction on property usage that runs with the land, such as recorded deed restrictions or protective covenants, to ensure that future development and redevelopment maintains the site consistent with the approved project plans.

6.20.3.2 High-Density Projects

High-density projects shall implement stormwater control measures that comply with each of the following standards:

- (a) Must control and treat runoff (generated from all surfaces) from the first inch of rain. Runoff volume drawdown time shall be a minimum of 48 hours, but not more than 120 hours.
- (b) All structural treatment systems used shall be designed to have a minimum of 85% average annual removal for Total Suspended Solids.
- (c) General engineering design criteria for all projects shall be in accordance with 15A NCAC 2H .1008(c), as explained in the Stormwater Design Manual.
- (d) Nutrient load contributions leaving the site must meet the requirements of *Section 6.20.4, Nutrient Load Calculation*.
- (e) At a minimum, the development shall not result in a net increase in peak flow leaving the site from pre-development conditions for the one-year, 24-hour storm event.

- (f) All impervious surface areas shall meet the riparian buffer requirements found in *Section 6.20.16, Riparian Buffers*.
- (g) The approval of the stormwater permit shall require an enforceable restriction on property usage that runs with the land, such as recorded deed restrictions or protective covenants, to ensure that future development and redevelopment maintains the site consistent with the approved project plans.

6.20.4 NUTRIENT LOAD CALCULATION

6.20.4.1 Nitrogen and phosphorous loads contributed by the proposed new development shall not exceed the following unit-area mass loading rates: 2.2 and 0.33 pounds per acre per year for nitrogen and phosphorous, respectively.

6.20.4.2 Development subject to this ordinance shall attain nitrogen and phosphorous loading rate reductions on-site that meet the following criteria prior to using an off-site offset measure:

- (a) 30% or more reduction in both nitrogen and phosphorous loading from the untreated conditions for any single-family, detached and duplex residential development disturbing one-half acre but less than one acre.
- (b) 50% or more reduction in both nitrogen and phosphorous loading from the untreated conditions for any single-family, detached and duplex residential development disturbing more than one acre.
- (c) 30% or more reduction in both nitrogen and phosphorous loading from the untreated condition for other development, including multi-family residential, commercial and industrial development disturbing 10,000 square feet but less than one acre.
- (d) 50% or more reduction in both nitrogen and phosphorous loading from the untreated condition for other development, including multi-family residential, commercial and industrial development disturbing more than one acre.
- (e) 30% or more reduction in both nitrogen and phosphorous loading from the untreated condition for proposed redevelopment activities in a designated downtown area that would replace or expand structures or improvements that existed as of December 2006.

6.20.4.3 Total nutrient removal rates of stormwater BMPs and BMPs in a series will be credited and calculated pursuant to the approved accounting tool.

6.20.5 OFFSET PAYMENTS

6.20.5.1 In accordance with subsection 6.20.4.2 above, offset fees may be permitted to meet the nutrient export levels set for new development activities.

6.20.5.2 Offset fees shall be paid to the NCEEP (North Carolina Ecosystem Enhancement Program) or another private mitigation bank approved by NCDWQ. Offset fees must be used within the Falls Lake Watershed.

6.20.5.3 A developer subject to this ordinance may achieve the additional reductions in nitrogen and phosphorus loading required by this ordinance by making offset payments to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that Program. A developer may use an offset option

provided by the Town of Hillsborough. A developer may propose other offset measures to the Town of Hillsborough, including providing his or her own offsite offset or utilizing a private seller. All offset measures permitted by this ordinance shall meet the requirements of 15A NCAC 02B .0282 and 15A NCAC 02B. 0240

6.20.5.4 Permanent Nutrient Export Reduction Best Management Practices

The following on-site BMPs may be used for reducing nutrients from new developments:

- (a) bio-retention
- (b) constructed wetlands
- (c) open channel practices
- (d) riparian buffers
- (e) wet detention ponds
- (f) other methods approved by NCDWQ.

The Town encourages applicants to pursue innovative options for treating stormwater on-site and discourages the use of wet detention ponds for most applications.

6.20.5.5 Total Nutrient Removal Rates

Total nutrient removal rates of stormwater BMPs and BMPs in a series will be credited and calculated pursuant to the approved accounting tool. To receive full nutrient reduction credit, design standards must follow those outlined in the Stormwater BMP Manual. Variances from the design standards may be allowed as approved on a case by case basis.

6.20.6 EVALUATION OF STANDARD FOR STORMWATER CONTROL MEASURES

6.20.6.1 Evaluation According to Contents of Stormwater Design Manual

All stormwater control measures, stormwater systems and stormwater treatment practices (also referred to as Best Management Practices, or BMPs) required under this ordinance shall be evaluated by the Stormwater Administrator according to the policies, criteria, and information, including technical specifications and standards and the specific design criteria for each stormwater practice, in the Stormwater Design Manual. The Stormwater Administrator shall determine whether proposed BMPs will be adequate to meet the requirements of this ordinance.

6.20.6.2 Determination of Adequacy; Presumption and Alternatives

Stormwater treatment practices that are designed, constructed, and maintained in accordance with the criteria and specifications in the Stormwater Design Manual and the approved accounting tool will be presumed to meet the minimum water quality and quantity performance standards of this ordinance. Whenever an applicant proposes to utilize a practice or practices not designed and constructed in accordance with the criteria and specifications in the Stormwater Design Manual, the applicant shall have the burden of demonstrating that the practice(s) will satisfy the minimum water quality and quantity performance standards of this ordinance. The Stormwater Administrator may require the applicant to provide the documentation, calculations, and examples necessary for the Stormwater Administrator to determine whether such an affirmative showing is made.

6.20.7 STORMWATER MANAGEMENT PLAN

6.20.7.1 Required Approval

The permit-issuing authority shall not issue any permits for new development on any land within the Town's planning jurisdiction unless and until a Stormwater Management Plan has been reviewed and approved in accordance with standards found in the *Administrative Manual*.

6.20.7.2 Compliance With Requirements

Any person engaged in new development activities as defined by this subsection who fails to file a plan in accordance with this ordinance, or who conducts any new development except in accordance with the provisions of an approved Stormwater Management Plan, shall be deemed in violation of this ordinance.

6.20.7.3 As-Built Plans and Final Approval

- 6.20.7.3.a** Upon completion of a project, and before a certificate of occupancy shall be granted, the applicant shall certify that the completed project is in accordance with the approved stormwater management plans and designs, and shall submit actual "as built" plans for all stormwater management facilities or practices after final construction is completed.
- 6.20.7.3.b** The plans shall show the final design specifications for all stormwater management facilities and practices and the field location, size, depth, and planted vegetation of all measures, controls, and devices, as installed. The designer of the stormwater management measures and plans shall certify, under seal, that the as-built stormwater measures, controls, and devices are in compliance with the approved stormwater management plans and designs and with the requirements of this ordinance. A final inspection and approval by the Stormwater Administrator shall occur before the release of any performance securities.

6.20.8 GENERAL STANDARDS FOR MAINTENANCE

6.20.8.1 Function of BMPs as Intended

The owner of each engineered stormwater control or stormwater BMP installed pursuant to this ordinance or any previous zoning or subdivision ordinance shall maintain and operate it so as to preserve and continue its function in controlling stormwater quality and quantity at the degree or amount of function for which the engineered stormwater control was designed.

6.20.8.2 Annual Maintenance Inspection and Report

- 6.20.8.2.a** The person responsible for maintenance of any engineered stormwater control installed pursuant to this ordinance or any previous zoning or subdivision ordinance shall submit to the Stormwater Administrator an inspection report from one of the following persons performing services only in their area of competence: a qualified registered North Carolina professional engineer, surveyor, landscape architect, soil scientist, aquatic biologist, or person certified by the North Carolina Cooperative Extension

Service for stormwater treatment practice inspection and maintenance. The inspection report shall contain all of the following:

- (a) The name and address of the land owner;
- (b) The recorded book and page number of the lot of each engineered stormwater control;
- (c) A statement that an inspection was made of all engineered stormwater controls;
- (d) The date the inspection was made;
- (e) A statement that all inspected engineered stormwater controls are performing properly and are in compliance with the terms and conditions of the approved maintenance agreement required by this ordinance; and
- (f) The original signature and seal of the engineer, surveyor, or landscape architect.

6.20.8.2.b For newly constructed engineered stormwater controls or stormwater BMPs, the Annual Maintenance Inspection and Report must be submitted to the Stormwater Administrator no later than September 1 of each year, beginning one year from the date of the as-built certification and each year thereafter.

6.20.8.2.c Engineered stormwater controls or stormwater BMPs constructed prior to February 28, 2011 pursuant to previous zoning or subdivision ordinances must complete an annual maintenance inspection and submit a report as described in Section 6.20.8.2.a above. The Annual Maintenance Inspection and Report must be submitted to the Stormwater Administrator no later than September 1 of each year.

6.20.9 OPERATION AND MAINTENANCE AGREEMENT

6.20.9.1 In General

6.20.9.1.a Prior to the conveyance or transfer of any lot or building site to be served by a engineered stormwater control pursuant to this ordinance, and prior to issuance of any permit for development requiring a engineered stormwater control pursuant to this ordinance, the applicant or owner of the site must execute an operation and maintenance agreement that shall be binding on all subsequent owners of the site, portions of the site, and lots or parcels served by the engineered stormwater control. Until the transference of all property, sites, or lots served by the engineered stormwater control, the original owner or applicant shall have primary responsibility for carrying out the provisions of the maintenance agreement.

6.20.9.1.b The operation and maintenance agreement shall require the owner or owners to maintain, repair and, if necessary, reconstruct the engineered stormwater control, and shall state the terms, conditions, and schedule of maintenance for the engineered stormwater control. In addition, it shall grant to Town a right of entry in the event that the Stormwater Administrator has reason to believe it has become necessary to inspect, monitor, maintain, repair, or reconstruct the engineered stormwater control; however, in no case shall the right of entry, of itself, confer an

obligation on Town to assume responsibility for the engineered stormwater control.

- 6.20.9.1.c** The operation and maintenance agreement must be approved by the Stormwater Administrator prior to plan approval, and it shall be referenced on the final plat and shall be recorded with the county Register of Deeds upon final plat approval. A copy of the recorded maintenance agreement shall be given to the Stormwater Administrator within 14 days following its recordation.

6.20.9.2 Special Requirement for Homeowners' and Other Associations

For all engineered stormwater controls required pursuant to this ordinance and that are to be or are owned and maintained by a homeowners' association, property owners' association, or similar entity, the required operation and maintenance agreement shall include all of the following provisions:

- (a) Acknowledgment that the association shall continuously operate and maintain the stormwater control and management facilities.
- (b) Establishment of an escrow account, which can be spent solely for sediment removal, structural, biological or vegetative replacement, major repair, or reconstruction of the engineered stormwater controls. If engineered stormwater controls are not performing adequately or as intended or are not properly maintained, the Town, in its sole discretion, may remedy the situation, and in such instances the Town shall be fully reimbursed from the escrow account. Escrowed funds may be spent by the association for sediment removal, structural, biological or vegetative replacement, major repair, and reconstruction of the engineered stormwater controls, provided that the Town shall first consent to the expenditure.
- (c) Both developer contribution and annual sinking funds shall fund the escrow account. Prior to plat recordation or issuance of construction permits, whichever shall first occur, the developer shall pay into the escrow account an amount equal to 15% per cent of the initial construction cost of the engineered stormwater controls. Two-thirds (2/3) of the total amount of sinking fund budget shall be deposited into the escrow account within the first 5 years and the full amount shall be deposited within 10 years following initial construction of the engineered stormwater controls. Funds shall be deposited each year into the escrow account. A portion of the annual assessments of the association shall include an allocation into the escrow account. Any funds drawn down from the escrow account shall be replaced in accordance with the schedule of anticipated work used to create the sinking fund budget.
- (d) The percent of developer contribution and lengths of time to fund the escrow account may be varied by the Town depending on the design and materials of the stormwater control and management facility.
- (e) Granting to the Town a right of entry to inspect, monitor, maintain, repair, and reconstruct engineered stormwater controls.
- (f) Allowing the Town to recover from the association and its members any and all costs the Town expends to maintain or repair the engineered stormwater

controls or to correct any operational deficiencies. Failure to pay the Town all of its expended costs, after 45 days written notice, shall constitute a breach of the agreement. In case of a deficiency, the Town shall thereafter be entitled to bring an action against the association and its members to pay, or foreclose upon the lien hereby authorized by the agreement against the property, or both. Interest, collection costs, and attorney fees shall be added to the recovery.

- (g) A statement that this agreement shall not obligate the Town to maintain or repair any engineered stormwater controls, and the Town shall not be liable to any person for the condition or operation of engineered stormwater controls.
- (h) A statement that this agreement shall not in any way diminish, limit, or restrict the right of the Town to enforce any of its ordinances as authorized by law.
- (i) A provision indemnifying and holding harmless the Town for any costs and injuries arising from or related to the engineered stormwater control, unless the Town has agreed in writing to assume the maintenance responsibility for the BMP and has accepted dedication of any and all rights necessary to carry out that maintenance.

6.20.10 INSPECTION PROGRAM

6.20.10.1 Inspections and inspection programs by the Town may be conducted or established on any reasonable basis, including but not limited to routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to, reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in BMPs; and evaluating the condition of BMPs.

6.20.10.2 If the owner or occupant of any property refuses to permit such inspection, the Stormwater Administrator shall proceed to obtain an administrative search warrant pursuant to G.S. 15-27.2 or its successor. No person shall obstruct, hamper or interfere with the Stormwater Administrator while carrying out his or her official duties.

6.20.11 PERFORMANCE SECURITY FOR INSTALLATION AND MAINTENANCE

6.20.11.1 May Be Required

The Town may, at its discretion, require the submittal of a performance security or bond with surety, cash escrow, letter of credit or other acceptable legal arrangement prior to issuance of a permit in order to ensure that the engineered stormwater controls are:

- (a) installed by the permit holder as required by the approved stormwater management plan, and/or
- (b) maintained by the owner as required by the operation and maintenance agreement.

6.20.11.2 Amount

6.20.11.2.a Installation

The amount of an installation performance security shall be the total estimated construction cost of the BMPs approved under the permit, plus 25%.

6.20.11.2.b Maintenance

The amount of a maintenance performance security shall be the present value of an annuity of perpetual duration based on a reasonable estimate of the annual cost of inspection, operation and maintenance of the BMPs approved under the permit, at a discount rate that reflects the jurisdiction's cost of borrowing minus a reasonable estimate of long-term inflation.

6.20.11.3 Uses of Performance Security

6.20.11.3.a Forfeiture Provisions

The performance security shall contain forfeiture provisions for failure, after proper notice, to complete work within the time specified, or to initiate or maintain any actions which may be required of the applicant or owner in accordance with this ordinance, approvals issued pursuant to this ordinance, or an operation and maintenance agreement established pursuant to this ordinance.

6.20.11.3.b Default

Upon default of the owner to construct, maintain, repair and, if necessary, reconstruct any engineered stormwater control in accordance with the applicable permit or operation and maintenance agreement, the Stormwater Administrator shall obtain and use all or any portion of the security to make necessary improvements based on an engineering estimate. Such expenditure of funds shall only be made after requesting the owner to comply with the permit or maintenance agreement. In the event of a default triggering the use of installation performance security, the Town shall not return any of the unused deposited cash funds or other security, which shall be retained for maintenance.

6.20.11.3.c Costs in Excess of Performance Security

If Town takes action upon such failure by the applicant or owner, the Town may collect from the applicant or owner the difference between the amount of the reasonable cost of such action and the amount of the security held, in addition to any other penalties or damages due.

6.20.11.3.d Refund

Within 60 days of the final approval, the installation performance security shall be refunded to the applicant or terminated, except any amount attributable to the cost (plus 25%) of landscaping installation and ongoing maintenance associated with the BMPs covered by the security. Any such landscaping shall be inspected one year after installation with replacement for compliance with the approved plans and specifications and, if in

compliance, the portion of the financial security attributable to landscaping shall be released.

6.20.12 NOTICE TO OWNERS

6.20.12.1 Deed Recordation and Indications on Plat

The applicable operations and maintenance agreement, conservation easement, or dedication and acceptance into public maintenance (whichever is applicable)] pertaining to every engineered stormwater control shall be referenced on the final plat and shall be recorded with the County Register of Deeds upon final plat approval. If no subdivision plat is recorded for the site, then the operations and maintenance agreement, conservation easement, or dedication and acceptance into public maintenance, whichever is applicable] shall be recorded with the County Register of Deeds so as to appear in the chain of title of all subsequent purchasers under generally accepted searching principles.

6.20.12.2 Signage

Where appropriate in the determination of the Stormwater Administrator to assure compliance with this ordinance, engineered stormwater controls shall be posted with a conspicuous sign stating who is responsible for required maintenance and annual inspection. The sign shall be maintained so as to remain visible and legible.

6.20.13 RECORDS OF INSTALLATION AND MAINTENANCE ACTIVITIES

The owner of each engineered stormwater control shall keep records of inspections, maintenance, and repairs for at least five years from the date of creation of the record and shall submit the same upon reasonable request to the Stormwater Administrator.

6.20.14 NUISANCE

The owner of each stormwater BMP, whether engineered stormwater control or non-engineered stormwater control, shall maintain it so as not to create or result in a nuisance condition.

6.20.15 MAINTENANCE EASEMENT

Every engineered stormwater control installed pursuant to this ordinance shall be made accessible for adequate maintenance and repair by a maintenance easement. The easement shall be recorded and its terms shall specify who may make use of the easement and for what purposes.

6.20.16 RIPARIAN BUFFERS

6.20.16.1 Purpose and Intent

In order to minimize sedimentation and pollution of surface waters within the planning jurisdiction, riparian buffers shall be provided along all surface waters identified in *Section 6.20.16.3, Applicability*. Undisturbed natural areas along surface waters act as a filter for sedimentation control and as a stabilizing agent for the banks of surface waters. In addition, these areas filter storm water run-off which may carry significant amounts of bacteria, excess nutrients and heavy

metals into surface waters. The buffer areas, along with controls on impervious surfaces, provide a good measure of water quality protection for the Eno River.

The Neuse River Basin Nutrient Sensitive Waters Management Strategy riparian buffer protection rules (Neuse Rules) of 15A NCAC 028 .0233 and .0241, apply to all lands within the Town of Hillsborough's planning jurisdiction. Wherever standards of the Neuse Rules and the standards listed in this ordinance differ, the more restrictive provisions shall apply.

6.20.16.2 Delegated Authority

The North Carolina Environmental Management Commission has jurisdiction to the exclusion of the Planning Director or designee to implement the requirements of the State's program for the following types of activities:

- (a) Activities undertaken by the State;
- (b) Activities undertaken by the United States;
- (c) Activities undertaken by multiple jurisdictions;
- (d) Activities undertaken by local units of government; and
- (e) Forestry Operations

6.20.16.3 Applicability

A riparian buffer shall be established directly adjacent to surface waters (i.e. intermittent streams, perennial streams, lakes and ponds) identified by any of the following means:

- (a) Surface water shown as solid blue or purple lines or as broken blue or purple lines on the most recent version of USGS Quadrangle maps;
- (b) Surface water shown in the most recent version of the Orange County Soil Survey; or
- (c) A surface water identified in a field determination made by staff trained in surface water identification through the North Carolina Division of Water Quality (NCDWQ). Disputes pertaining to water feature decisions by staff shall be filed directly to the Director of NCDWQ.

6.20.16.4 Exemption Based upon an On-site Determination

When a landowner or other affected party including the Division believes that the maps inaccurately depict surface waters, they may request an On-site determination conducted by staff who has successfully completed the Division's Surface Water Identification Training Certification course, its successor, or other equivalent training curriculum approved by the Division. Any disputes over on-site determinations shall be referred to the Director of the Division of Water Resources in writing. A determination of the Director of the Division of Water Resources as to the accuracy or application of the maps is subject to review as provided in articles 3 and 4 of G.S. 150B. Surface waters that appear on the maps shall not be subject to this Rule if a site evaluation reveals any of the following cases:

- (a) Man-made ponds and lakes that are not part of a natural drainage way that is classified in accordance with 15A NCAC 02B .0110, including ponds and lakes created for animal watering, irrigation, or other agricultural uses. A pond or lake

is part of a natural drainage way when it is fed by an intermittent or perennial stream or when it has a direct discharge point to an intermittent or perennial stream.

- (b) Ephemeral streams.
- (c) The absence on the ground of a corresponding intermittent or perennial stream, lake, reservoir, or pond.
- (d) Ditches or other man-made water conveyances, other than modified natural streams.

6.20.16.5 Exemption when Existing Uses are Present and Ongoing

Section 6.20.16, Riparian Buffers does not apply to portions of the riparian buffer where a use is considered existing and ongoing according in accordance with 15A NCAC 028 .0233 (3). A use is considered existing if it was present within the riparian buffer as of July 22, 1997. Existing uses shall include, but not be limited to, agriculture, buildings, industrial facilities, commercial areas, transportation facilities, maintained lawns, utility lines and on-site sanitary sewage systems. Only the portion of the riparian buffer that contains the footprint of the existing use is exempt from this Rule.

6.20.16.6 Calculations for Width of Riparian Buffers

The width of the buffer along the Eno River shall be the floodway as shown on the Floodway Map from the National Flood Insurance Program, plus fifty (50) feet. However, in no case, shall the riparian buffer exceed the outer line of the floodplain as shown on the Flood Insurance Rate Map (FIRM) of the National Flood Insurance Program. For streams within the PW and PWCA zoning districts (see *Section 4.5, Other Zoning Districts*), the width of the stream is calculated as outlined in *Section 4.5.3.8.d, Calculating Width of Riparian Buffer*.

In all other cases, a buffer of fifty (50) feet in width measured from the most landward limit of the top of bank, normal water level or rooted herbaceous vegetation of surface waters identified in *Section 6.20.16.3, Applicability*.

6.20.16.7 Permitted Uses Within Riparian Buffers

It is the intent of this section to restrict the use of land adjacent to streams, ponds, lakes and reservoirs in order to reduce sedimentation and pollution. The following uses are permitted within a designated riparian buffer. All other land uses are prohibited.

Table 6.20.16.7 Permitted Uses within Riparian Buffers

Riparian Buffer Use		Allowable	Allowable w/Mitigation
Utilities	Perpendicular crossings of above ground and buried utility lines for local distribution of electricity, telephone, and cable television service, plus accessory and appurtenant apparatus such as poles, guy wires, transformers, and switching boxes, with a construction width of less than or equal to 40 feet and a 10-foot maintenance corridor.	X	
	Perpendicular utility crossings that exceed 40 feet of construction width and/or require more than a 10-foot maintenance corridor through the riparian buffer.		X
	Non-perpendicular riparian buffer impacts for utilities.		X
Water and Sewer	Perpendicular crossings of water and sewage distribution, collection, and treatment facilities, but not private in-ground sewage disposal facilities, with a construction width of less than or equal to 40 feet and a 10-foot maintenance corridor.	X	
	Perpendicular water and sewage crossings that exceed 40 feet of construction width and/or require more than a 10-foot maintenance corridor through the riparian buffer.		X
	Non-perpendicular riparian buffer impacts for public water and sewage distribution.		X
	Water wells	X	
Streets and Bridges	Perpendicular crossings of streets, bridges, and railroad rights-of-way impacting less than 150 feet of riparian buffer.	X	
	Perpendicular crossings of streets, bridges, and railroad rights-of-way that exceed 150 feet of riparian buffer impact.		X
	Temporary access roads disturbing less than 2,500 square feet of riparian buffer provided vegetation is restored within six months of initial disturbance.	X	
	Temporary roads disturbing more than 2,500 square feet of riparian buffer.		X
	Non-perpendicular riparian buffer impacts of streets and railroad rights-of-Way		X

Restoration	Stream restoration and/or stream bank stabilization.	X	
	Wetland restoration, in accordance with all applicable local, State and Federal regulations.	X	
	Removal of previous fill or debris provided that diffuse flow is maintained and any vegetation removed is restored.	X	
Stormwater Facilities	Maintenance of existing stormwater outfalls provided they are managed to minimize the sediment, nutrients, and other pollution they convey to waterbodies.	X	
	New drainage outfalls provided that a stormwater management facility is installed to control nutrients and attenuate flow before the conveyance discharges into the riparian buffer.		X
	Engineered stormwater ponds, bioretention and wetlands provided that a riparian buffer meeting the requirements of Section 6.20.16.3 is established.	X	
	Engineered stormwater ponds, bioretention and wetlands where a riparian buffer cannot be established in accordance with Section 6.20.16.3.		X
Maintenance	Drainage of a pond in a natural drainage way provided that a new riparian buffer that meets the requirements of Section 6.20.16.6 is established adjacent the new channel.	X	
	Maintenance activities of existing dams	X	
	Periodic maintenance of modified natural streams	X	
	Protection of existing structures, facilities and streambanks when this requires additional disturbance of the riparian buffer or the stream channel	X	
Miscellaneous	Greenways	X	
	Archeological research and excavation	X	
	Scientific studies and stream gauging	X	
	Fences provided that disturbance is minimized and existing trees and woody vegetation is not disturbed during installation and maintenance	X	
	Ponds in natural drainage ways (excluding dry ponds) provided that a riparian buffer meeting the requirements of Section 6.20.16.3 is established	X	
	Ponds in natural drainage ways (excluding dry ponds) where a riparian buffer cannot be established in accordance with Section 6.20.16.3		X

Water dependent structures as defined in 15A NCAC 2B .0202	X	
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6.20.16.8 Written Authorization Required

Proposed impacts from permitted uses to the riparian buffer may not commence until written authorization is provided by the Planning Director or designee. Use authorization may include conditions specific to the proposed activity. Unauthorized impacts to riparian buffers are subject to enforcement penalties as outlined in *Section 8, Enforcement*.

In order for a permitted use to be authorized, the applicant must demonstrate “no practical alternatives.” The determination of “no practical alternatives” will be made by the Planning Director or designee based upon the following:

- (a) The basic project purpose cannot be practically accomplished in a manner that would better minimize disturbance, preserve aquatic life and habitat, and protect water quality.
- (b) The use cannot practically be reduced in size or density, reconfigured or redesigned to better minimize disturbance, preserve aquatic life and habitat, and protect water quality.
- (c) Best management practices shall be used if necessary to minimize disturbance, preserve aquatic life and habitat, and protect water quality.

Prior to any land disturbing activity within a designated riparian buffer, the property owner shall provide written notification of the location and nature of the proposed use to the Planning Director or designee for review. Written notification must include the following:

- (a) The name, address and phone number of the applicant;
- (b) The nature of the activity to be conducted by the applicant;
- (c) The location of the activity;
- (d) A map of sufficient detail to accurately delineate the boundaries of the land to be utilized in carrying out the activity, the location and dimensions of any disturbance in the riparian buffers associated with the activity, and the extent of the riparian buffers on the land; and
- (e) An explanation of why this plan for the activity cannot be practically accomplished, reduced or reconfigured to better minimize disturbance to the riparian buffer, preserve aquatic life and habitat and protect water quality.
- (f) Plans for any best management practices proposed to be used to control the impacts associated with the activity.

6.20.16.9 Diffuse Flow Requirement

- (a) Diffuse flow or runoff shall be maintained in the riparian buffer by dispersing concentrated flow and re-establishing vegetation.
- (b) Concentrated runoff from new ditches or manmade conveyances shall be converted to diffuse flow before the runoff enters the riparian buffer.

- (c) Periodic corrective action to restore diffuse flow shall be taken if necessary to impede the formation of erosion gullies.

6.20.16.10 Mitigation

Where mitigation is required pursuant to the permitted uses listed in Section 6.20.16.6, *Permitted Uses Within Riparian Buffers*, mitigation shall follow the standards set out in the state's consolidated Riparian Buffer Mitigation Rule, 15A NCAC 02B .0295.

6.20.16.11 Riparian Buffer and Minimum Lot Requirements

The riparian buffer may be used in meeting the required minimum lot areas set forth in the Ordinance.

6.20.16.12 Existing Vegetation and New Vegetation in Riparian buffers

Existing vegetation shall not be disturbed within a riparian buffer without prior approval of the Planning Director or designee. Existing vegetation may be augmented within the buffer and invasive vegetation may be removed if the Planning Director or designee approves the plans in advance. Any work done in the riparian buffer must be designed and intended to increase the infiltration capability of the buffer and reduce the velocity of storm water run-off.

In the situation where the required buffer experiences erosion problems due to topography or other existing conditions of the land, the Planning Director or designee shall require that the buffer be planted so that it will function as a sediment and pollutant trap. Such planting shall be completed prior to the issuance of a Certificate of Occupancy.

The use of pesticides, herbicides, or chemicals is not allowed in the riparian buffer except with the prior approval of the Planning Director or designee, and only allowed as described within the Neuse Buffer Rules.

6.21 STREETS

6.21.1 PURPOSE AND INTENT

It is the intent of this section to protect and promote the public health, safety, and general welfare by requiring the uniform construction of streets. Street rights-of-way are designed and developed to serve several functions: (i) to carry motor vehicle traffic, and in some cases, allow on-street parking; (ii) to provide a safe and convenient passageway for pedestrian traffic; and (iii) to serve as an important link in the town's drainage system.

6.21.2 APPLICABILITY

New streets will generally be dedicated to the town or NC Department of Transportation. Private streets are generally only permitted in minor subdivisions or within attached dwelling developments and are also regulated by this section.

6.21.3 DESIGN STANDARDS – PUBLIC STREETS

- 6.21.3.1** New public streets in the city limits must meet the Town of Hillsborough's *Standard Specifications for Street Construction* and Acceptance Procedures in the *Checklist and Approval Requirements for Utility Projects*.
- 6.21.3.2** Public streets in developments in the Town's extraterritorial zoning jurisdiction must be approved and accepted by the NC Department of Transportation.
- 6.21.3.3** Minimum right of way widths by public street type:
 - i. Arterial Streets shall provide 100 feet of public right of way
 - ii. Collector Streets shall provide 70 feet of public right of way
 - iii. Local Streets shall provide 60 feet of public right of way
 - iv. Cul de sacs shall provide 50 feet of public right of way
- 6.21.3.4** Additional street right-of-way may be required in cases where underground public utilities, sidewalks, and drainage facilities cannot all be located within the minimum stated above.
- 6.21.3.5** Streets shall be laid out so as to intersect as nearly as possible at right angles and no street shall intersect any other street at an angle less than sixty (60) degrees.
- 6.21.3.6** The proposed street layout shall be coordinated with the existing street system of the surrounding area and with the Hillsborough Thoroughfare Plan. Where possible proposed streets shall be the extension of existing streets. Modification of the existing grid pattern may be allowed to accommodate site topography.
- 6.21.3.7** To maximize connectivity for public safety and avoid the requirement for additional right of way width improvement and dedication, block lengths will generally not exceed 400 feet and there will be two points of access for any street containing 30 or more dwellings not equipped with individual sprinkler systems.
- 6.21.3.8** All permanent dead-end streets (as opposed to temporary dead-end streets or stub-outs) shall be developed as cul-de-sacs in accordance with the standards set forth in Appendix D of the Fire Code. To avoid the requirement of additional right of way width improvement and dedication, dead-end streets may not exceed 400 feet in length.
- 6.21.3.9** Cul-de-sacs shall not be used to avoid connection with an existing street or to avoid the extension of an important street.
- 6.21.3.10** Whenever possible, proposed intersections along one side of a street shall coincide with existing or proposed intersection on the opposite side of such street. In any event, where a centerline offset (jog) occurs at an intersection, the distance between centerlines of the intersecting streets shall be not less than 150 feet.
- 6.21.3.11** Except when no other alternative is practicable or legally possible, no two streets may intersect with any other street on the same side at a distance of less than 400 feet measured from centerline to centerline of the intersecting street. When the intersected street is an arterial, the distance between intersecting streets shall be at least 1000 feet.

- 6.21.3.12** The permit issuing authority may require the applicant to extend a right of way, build the street, and/or provide a temporary cul-de-sac in order to stub out streets that should be connected to existing or proposed streets outside the subdivision.

6.21.4 DESIGN STANDARDS - PRIVATE ROADS

- 6.21.4.1** Any private road within an attached dwelling or multi-family development must meet the design standards for town public streets.
- 6.21.4.2** Any private road within a minor residential subdivision must have a minimum right of way width of twenty feet which includes the travel way and associated drainage facilities. Any underground utilities may be located within the road right of way or a separate utility right of way.
- 6.21.4.3** A private road within a minor residential subdivision may be required to provide a right of way of fifty (50) feet if the land and lots are arranged to allow the potential conversion of the road to a public road. If the lot arrangement, surrounding development pattern, zoning, and existing town plans indicate conversion is unlikely, the permit issuing authority may allow a private road to reduce the right of way width to no less than 18 feet.
- 6.21.4.4** Lots for single family detached dwellings may be created with access to a private road provided that:
- (a) No more than four (4) lots may have their sole access to the private road;
 - (b) A new private road shall not be an extension of any existing public or private road; and
 - (c) A new private road shall not be aligned with an existing public road in such a way as may interfere with any planned extension of the public road.
- 6.21.4.5** The intent of this subsection is primarily to allow the creation of not more than four (4) lots with frontage on a private road for single-family development. Therefore, the Town may not approve any project served by a private road authorized by this subsection in which one (1) or more of the lots thereby created is intended for:
- (a) Two-family or multi-family residential use, or
 - (b) Any other residential use or nonresidential use that would tend to generate more traffic than that customarily generated by four (4) single-family residences.
- 6.21.4.6** To ensure that the intent of this subsection is not subverted, the Town may, among other possible options, require that the approved plans show the types and locations of buildings on each lot or that the lots in a residential development served by a private road be smaller than the permissible size of lots on which two-family or multi-family developments could be located, or that restrictive covenants limiting the use of the subdivided property in accordance with this section be recorded before final plat approval.
- 6.21.4.7** No final plat that shows lots served by private roads may be recorded unless the final plat contains the following notation:
- “Further subdivision of any lot shown on this plat as served by a private road may

be prohibited by the Town of Hillsborough *Unified Development Ordinance*.”

- 6.21.4.8** The recorded plat of any development that includes a private road shall clearly state that such road is a private road and must be accompanied by a private road maintenance agreement that is also recorded.

6.21.5 STREET NAMES AND SIGNS – PUBLIC AND PRIVATE STREETS

- 6.21.5.1** Names of streets which duplicate or can be confused with the names of existing streets within Orange County, shall not be approved. New street names shall be reviewed and approved by Orange County Information Technology so as to avoid duplication and/or unnecessary confusion caused by similar street names.
- 6.21.5.2** Extensions of existing and named streets shall bear the name of such existing streets.
- 6.21.5.3** House numbering will be assigned by the Planning Director in accordance with town policies.
- 6.21.5.4** Approved street name signs shall be erected by the applicant at the intersection of streets as specified in the *Manual of Uniform Traffic Devices*.

6.22 TREE PROTECTION STANDARDS

6.22.1 PURPOSE AND INTENT

It is the intent of this section to protect and promote the public health, safety, and general welfare by requiring the preservation, maintenance, and protection of the tree coverage area. Preservation of the tree coverage area helps to reduce carbon emissions and decrease the urban “heat-island” effect.

6.22.2 APPLICABILITY

Every application for Master Plan, Site plan, Special Use Permit, Conditional Use Permit or grading plan for a site 10,000 sf or larger or any modification to any of the listed permit types shall provide a tree inventory and protection plan. This plan shall also be included in the grading plan of the construction drawings for any of the review types listed.

Applicants submitting a grading plan as part of a Zoning Compliance Permit application where no building or structure is proposed shall also submit provide a tree inventory and protection plan.

6.22.3 REQUIREMENTS

- 6.22.3.1** Grading and tree protection plans shall indicate the limits of the area to be disturbed. This limit shall be marked in the field with tree protection fencing and signs and shall be verified by Planning Director before grading work begins.
- 6.22.3.2** Tree inventories shall identify all canopy trees on site including the diameter (dbh) and species. Plans shall clearly indicate the trees to be removed and those to remain.
- 6.22.3.3** For sites exceeding 20 acres, the applicant may provide 100’ X 100’ sample survey areas for each separate undisturbed portion of the site containing an acre or more.

6.22.3.4 When an application only approves the installation of infrastructure for a site and the creation of lots for single family residential development, survey data is required within the disturbed areas of the site.

6.22.3.5 Applications shall clearly state, in table form:

- (a) the number of canopy trees to be removed
- (b) an estimate of the number of canopy trees being retained
- (c) the number of trees 24" or greater dbh to be removed
- (d) the percentage of tree cover area before development
- (e) the percentage of tree cover area after development.

6.22.3.6 For each 24" or greater tree proposed for removal, the applicant shall indicate all design alternatives considered to allow the retention of the tree.

6.22.3.7 A tree protection plan will show the tree coverage area before development and shall indicate which method was used to calculate the tree coverage area.

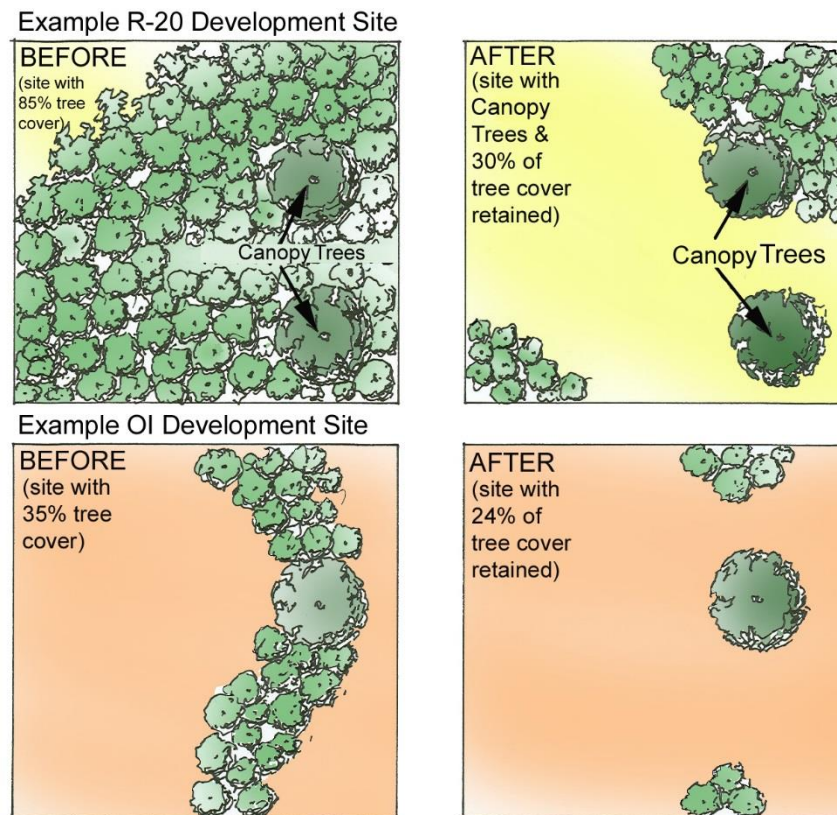
6.22.4 STANDARDS

6.22.4.1 Applications shall clearly state the number of canopy trees to be removed, along with an estimate of the number being retained on site.

6.22.4.2 Applications shall also include a calculation of percentage of the site covered by tree coverage area before and after development.

- (a) For sites with existing, pre-development tree coverage area that covers 25% or less of the site, it is expected that the developed condition of the site shall not reduce this percentage.
- (b) For sites with existing, pre-development tree coverage area that covers more than 25% but less than 50% of the site, maintenance of the tree coverage area is required.
- (c) For sites with existing pre-development tree coverage area that covers more than 50% of the site, some reduction of that percentage may be approved by the permit issuing authority.

Figure 6-11: Tree Protection Zone



6.22.5 PRIORITY RETENTION AREAS

Priority areas for retention of existing trees and vegetation shall include the following (listed in priority order from highest priority to lowest priority):

- (a) Areas containing canopy trees 24" DBH or greater and their critical root zones
- (b) Areas containing groups or stands of mature trees that provide important design, buffering, forest preservation, or wildlife functions.
- (c) Riparian buffers, wetlands, or wetland protection areas
- (d) Areas with a natural grade of 15% or more
- (e) Areas needed for required landscaping
- (f) Wildlife habitat or other sensitive natural areas.

6.22.6 REVEGETATION

- 6.22.6.1** If canopy trees are removed from an area not designated for removal on the approved grading plan, the applicant shall replant trees on an inch per inch basis based on caliper or trunk diameter the size of the removed canopy tree(s) elsewhere on the site, OR preserve an additional area on the site with comparable tree composition that is the same size as the area damaged. For example, if 6 canopy trees are improperly removed from a site, each with a 10" diameter trunk, 60" of new trees must be planted on site OR 60" worth of new canopy trees must be preserved on site.

- 6.22.6.2** Planted trees will be of a similar species, if available, and shall be a minimum of 2" caliper at time of planting.
- 6.22.6.3** If a site does not contain sufficient space to create healthy habitat for the needed replanting, the applicant may make a payment to the Town (to be used for planting by the Tree Board) in an amount equal to the cost of acquiring and planting the required trees OR may make the plantings elsewhere but within the development in which the site is located, if applicable.

6.23 WASTE MANAGEMENT & RECYCLING

Plans for site and development waste management and recycling must comply with the Orange County Solid Waste Management Ordinance, provisions of the Town Code relative to solid waste service, and screening provisions in *Section 6.16, Screening*.

6.24 WASTEWATER DISPOSAL

Plans for a proposed public or community sewage system shall be approved by the Town Engineer, Health Department, or Director of the Division of Environmental Management, whichever is appropriate.

On-site septic tanks shall comply with *Section 4.5, Other Zoning Districts*, where applicable, and be approved by the Orange County Health Department and/or other agency with jurisdiction.

6.25 WATER SUPPLY

Plans for a proposed public or community sewage system shall be approved by the Town Engineer, Health Department, or Director of the Division of Environmental Management, whichever is appropriate.